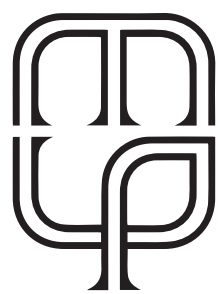
Formulating development

How Nestlé shaped the aid industry

Lola Wilhelm

HUMANITARIANISM
KEY DEBATES & NEW APPROACHES

Formulating development



Manchester University Press

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DOI: https://doi.org/10.7765/9781526181008

Giant steel fork in water of Lake Geneva, Vevey, Switzerland. Wikimedia Commons.

Published by Manchester University Press
Oxford Road, Manchester, M13 9PL

www.manchesteruniversitypress.co.uk

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

ISBN 978 1 5261 8099 5 hardback

First published 2025

EU authorised representative for GPSR:
Easy Access System Europe, Mustamäe tee 50, 10621 Tallinn, Estonia
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To Éloïse

Contents

Figures and tables

Figures

Tables

Foreword

Global history studies the lives of people, ideas, and institutions that have transcended the borders of the modern nation-state.[1] As one of the more recent currents of the historical discipline, it has led to exciting (re)discoveries. International organisations (IOs) are a good example of this. Whereas earlier generations of historians regarded international organisations as mere arenas for great power diplomacy, recent research in global history has shown that they have been much more than this.[2] IOs, as we now know, have been channels of cultural and scientific exchange throughout the nineteenth and twentieth century.[3] As influential bureaucracies, some of them have pursued geopolitical agendas of their own.[4] Migrations, the international economy, human rights, are just a few other historical topics to have been recently reappraised by global history.[5]

Surprisingly, despite their global stature, multinational enterprises (MNEs) have received comparatively little attention from global history scholars. Since the 1970s, the pioneering work of international business historians such as Mira Wilkins has shone light on the emergence and evolution of MNEs.[6] More recent initiatives, such as the Global History of Capitalism project at the University of Oxford, have aimed to make the history of MNEs accessible to wider academic audiences.[7] Yet as we shall see, the past implication of MNEs in global history, especially in the Global South, remains a little-trodden research avenue.[8]

This book hones in on a prominent multinational food corporation, Nestlé, as a central yet neglected actor of this history. More specifically, it tells the story of Nestlé's involvement in international development over the course of the late nineteenth and twentieth centuries. This premise might come as a surprise to readers familiar with the history of the 1970s Nestlé boycott. Back then, Nestlé and other brands were accused of aggressively advertising their products to mothers in the developing world, indirectly encouraging them to stop breastfeeding and to turn to bottles and formula instead, even if this was less safe and more expensive. As the evidence gathered in this book demonstrates, however, this scandal is only the

tip of the iceberg when it comes to Nestlé's historical role in international development.

Nestlé was first acquainted with the politics of development in its home country, Switzerland, between the mid-nineteenth century and the First World War. Encouraged by these experiences, the company sought to establish a foothold in the nascent field of international development. This strategy took it to increasingly distant regions of the globe. During the heyday of its international development ventures, between the First World War and the 1970s, the firm participated in aid programmes in Southern Europe, Latin America, South Asia, and Africa. It encountered numerous protagonists of international development along the way. Farmers, doctors, engineers, politicians, civil servants, colonial administrators, humanitarian aid workers, and diplomats were just a few of them, not to mention the institutions that employed them. This book examines Nestlé's long-term collaborations and long-forgotten disputes with these protagonists, which continue to shape the firm's presence in the Global South today.

Writing this story has necessitated extensive research in several countries and multiple languages. The evidence base for this book stems primarily from historical archives: those of Nestlé itself, of non-governmental organisations (NGOs), of IOs, and of public administrations in Switzerland, France, and some of the formerly colonised countries of West Africa. Whether public or private, local or international, a large part of these historical sources is brought to light here for the first time. The findings presented here also build on previously published materials. They include scientific and medical journals, the reports of NGOs and IOs, and mainstream press archives.

A few more words on these primary sources may be useful here. First, the *Archives Historiques Nestlé* – Nestlé Historical Archives (AHN) form the backbone of this book. As one might expect from one of the largest corporations in the world, getting access to these archives can be a stringent process that requires time and perseverance. As often in business archives, catalogues are not readily available to researchers, and photographs are not allowed. Nevertheless, the AHN were a treasure trove when it came to investigating Nestlé's historical role in international politics. As I leafed through internal reports and correspondence, pictures, legal cases and financial documents, the tantalising story of the firm's international development experiments started to come into focus. But telling this story came with strings attached. In compliance with the terms of use of the AHN, individuals can only be identified by their initials and position within the company. Exceptions have been made when they are well-known public figures, or when they are clearly named in other archives. Additional biographical details are drawn from online repositories such as the *Dictionnaire historique de la Suisse*,

the *Documents Diplomatiques Suisses*, and the *Base de données des élites suisses*.

There were further considerations to take into account at the AHN. The primary purpose of a corporate archive is to serve the firm's own historical and institutional memory. In the case of Nestlé, this memory is showcased to the public in museums such as the Alimentarium in Vevey and its now famous Fork, pictured on this book's cover. It is also used internally, in reports to staff and shareholders for instance. So, even if companies like Nestlé voluntarily make their historical records available to researchers, one must be aware that they reflect certain corporate priorities, especially since archival storage and management is a costly business. As a result, many documents have been lost to purges because they were considered no longer relevant. The surviving records, meanwhile, magnify some aspects of the firm's history, but remain silent on others. Arguably all archives are prone to such biases, though perhaps not always as noticeably.

These caveats aside, as with all historical research, the facts found in the AHN needed to be checked and cross-examined using other sources wherever possible. They also needed to be put in historical perspective and appraised critically. Silences in the archives too needed to be analysed and, when feasible, filled out.

Following often faint trails, I went in search of evidence of Nestlé's development ventures further afield. My research journey took me to local and national archives in Switzerland: the Geneva State Archives (*Archives d'Etat de Genève,* AEG) and the Swiss federal archives (*Archives fédérales suisses*, AFS) in particular. I also made my way through the archives of international and non-governmental organisations, including those of the International Committee of the Red Cross (ACICR), of the Save the Children International Union (SCIU), and the World Health Organization archives (WHOA). French national, colonial, and military archives such as the National Archives in Pierrefitte-sur-Seine, the National Overseas Archives (*Archives Nationales d'Outre-Mer*, ANOM) and the archives of the Tropical Medicine Institute of the Armed Forces Health Service (*Institut de médecine tropicale du Service de santé des armée*, IMTSSA) were equally critical for this project. My search for rare books and journals further took me to France's National Library (*Bibliothèque Nationale de France*) and the university libraries of Oxford. The sources I gathered along the way richly illustrated the historical background and context of Nestlé's development ambitions. On more than a few lucky occasions, they even contained detailed accounts of partnerships with Nestlé and of the firm's activities.

Having expanded on the scope and sources of this project, I also want to acknowledge its limitations. Some of them were practical. To name just the most obvious one, due to the COVID pandemic I had to give up

on a much-anticipated research trip to the National Archives of Senegal (*Archives Nationales du Sénégal*), where I might otherwise have found some of the missing pieces of the jigsaw puzzle that is this book. I hope that this loss is partly compensated by some of the French colonial archives that I did access, and that mirror some of those held in Dakar.

Next, I am aware of the thriving research being carried out in German on Switzerland's international and colonial past.[9] Limited as I am by the language barrier, however, I am guilty of only occasionally citing this literature.

There were also more conceptual conundrums. Since the 1990s but especially in the wake of the #metoo and #blacklivesmatter movements, many historians and social scientists have been vocal about the need to shift our focus to the experience of marginalised groups in the history of development, not least women and colonised people. The task is, without dispute, well overdue. One of the objectives of this book is to contribute to the ongoing debate surrounding the historical gaze by spotlighting previously neglected actors, including patients in maternal and child health institutions and the purported recipients of international aid. It does so by paying close attention to the lived experiences of these actors whenever they appear in the sources. I am aware, however, that this approach only goes so far. The written records used in this book were produced almost exclusively by dominant, sometimes oppressive, groups, be they a colonial administration or a business elite. It follows that these records can only offer a filtered and warped version of the voices of subaltern subjects. One could argue that oral history would have been a useful way of solving this problem. However, considering the timeframe and geographical focuses of this book, tracking down surviving witnesses to conduct interviews with them was always going to be an uncertain quest, and one I decided not to pursue. Many voices, such as those of children and their families, not to mention their broader communities, must therefore remain unheard. Investigating a multinational enterprise has been an ambitious project in and of itself and, as one anonymous peer-reviewer of this monograph has generously put it, there is a limit to what any one book can cover. But although this book does not claim to tell a history of Nestlé's development ventures from below, it does seek to offer a critical account of these ventures. It is particularly careful to analyse the disjuncture between their noble-minded principles, their real motives, and the sometimes problematic realities of their implementation and legacies.

Finally, a question I have been asked more than once while writing this book has been: how about multinationals more generally? Is Nestlé an outlier, or is it representative of a wider historical trend? There can be no simple answer. The paucity of historical research on other corporations in the

context of international development makes the task of comparing Nestlé to others a delicate one. Whenever the literature and my sources make it possible, I do zoom in on other businesses. Some are small and local, others are large and multinational. They are often, though not always, Nestlé's competitors. As this evidence shows, Nestlé and other companies have on occasion coalesced on the scene of international development. They have also competed for the same resources and markets. What these comparisons show is that competition has shaped Nestlé's strategy and that of development agencies.

I cannot be certain that Nestlé is an archetype when it comes to corporate involvement in international development today; nor can I say that it is unique. Political scientists and legal scholars may be better equipped to answer this question.[10] What I can offer is to braid together many previously unconnected histories that underpin MNE involvement in international development, whether it manifested as corporate social responsibility (CSR), philanthropy, scientific research, lobbying, public–private partnership (PPP), or even corporate misconduct. To paraphrase Jonathan Liebenau's introduction to the volume *Pill Peddlers*, the results presented here may need to be revisited as more global histories of MNEs arise. In the meantime this book will contribute, I hope, to a growing literature in both international business history and development studies.

Zurich, February 2025

Notes

1 For an overview of debates on this approach, see C. A. Bayly *et al*., 'AHR Conversation: On Transnational History', *The American Historical Review* 111, no. 5 (December 1, 2006): 1441–64; Patricia Clavin, 'Time, Manner, Place: Writing Modern European History in Global, Transnational and International Contexts', *European History Quarterly* 40, no. 4 (October 1, 2010): 624–40; A. Iriye, *Global and Transnational History: The Past, Present, and Future* (Springer, 2012); Pierre-Yves Saunier, *Transnational History* (Macmillan International Higher Education, 2013).

2 On the diplomatic history of the United Nations, see e.g. Pierre du Bois, 'L'ONU d'hier à demain', *Relations internationales* 127, no. 3 (September 1, 2006): 3–4.

3 Akira Iriye, *Global Community: The Role of International Organizations in the Making of the Contemporary World* (Berkeley, CA: University of California Press, 2004); Sandrine Kott, 'Les organisations internationales, terrains d'étude de la globalisation. Jalons pour une approche socio-historique', *Critique internationale* 52, no. 3 (2011): 9; Marc Frey, Sönke Kunkel, and Corinna R. Unger,

eds, *International Organizations and Development, 1945–1990*, Palgrave Macmillan Transnational History Series (Basingstoke: Palgrave Macmillan, 2014); Davide Rodogno, Bernhard Struck, and Jakob Vogel, eds, *Shaping the Transnational Sphere: Experts, Networks and Issues from the 1840s to the 1930s*, 1st ed. (New York, NY: Berghahn Books, 2014).

4 Mark Mazower, *No Enchanted Palace: The End of Empire and the Ideological Origins of the United Nations*, Lawrence Stone Lectures (Princeton, NJ: Princeton University Press, 2009); Mark Mazower, *Governing the World: The History of an Idea* (New York, NY: Penguin Press HC, 2012).

5 Emily S. Rosenberg, *Financial Missionaries to the World: The Politics and Culture of Dollar Diplomacy, 1900–1930*, American Encounters/Global Interactions (Durham, NC: Duke University Press, 2003); Samuel Moyn, *The Last Utopia: Human Rights in History* (Cambridge, MA: Belknap Press of Harvard University Press, 2010); Patricia Clavin, *Securing the World Economy: The Reinvention of the League of Nations, 1920–1946* (Oxford: Oxford University Press, 2013); Glenda Sluga and Patricia Clavin, eds, *Internationalisms: A Twentieth-Century History*, 1st ed. (Cambridge: Cambridge University Press, 2016).

6 Mira Wilkins, *The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914* (Cambridge, MA: Harvard University Press, 1970); Mira Wilkins, *The Maturing of Multinational Enterprise: American Business Abroad from 1914 to 1970*, Harvard Studies in Business History; 27 (Cambridge, MA: Harvard University Press, 1974).

7 https://globalcapitalism.history.ox.ac.uk/.

8 Laurence Badel's thoughts (and others') on this point a decade ago are still largely true today; see Laurence Badel, 'Milieux économiques et relations internationales : bilan et perspectives de la recherche au début du xxie siècle', *Relations internationales* 157 (March 27, 2014): 3–23; and Sabine Pitteloud *et al.*, 'Capitalism and Global Governance in Business History: A Roundtable Discussion', *Harvard Business School Working Paper* 22–081 (June 2022).

9 Some useful references include, e.g. Monica Kalt, *Tiersmondismus in der Schweiz der 1960er und 1970er Jahre: Von der Barmherzigkeit zur Solidarität*, New (Bern: Peter Lang AG, Internationaler Verlag der Wissenschaften, 2010); Konrad J. Kuhn, *Entwicklungspolitische Solidarität: Die Dritte-Welt-Bewegung in der Schweiz zwischen Kritik und Politik* (Zürich: Chronos, 2011).

10 Liliana B. Andonova, *Governance Entrepreneurs: International Organizations and the Rise of Global Public-Private Partnerships* (New York, NY: Cambridge University Press, 2017).

Acknowledgements

I want to thank Davide Rodogno, Amalia Ribi Forclaz, Bertrand Taithe, and Christopher McKenna for their mentorship over the course of the decade it took me to write this book. I am grateful for your kind-heartedness and steady support through these event-filled years. Any merit this book might have is in large part thanks to your intellectual guidance.

I am grateful to the supervisors, colleagues, and students at my home institutions past and present whose comradeship and thoughtful comments on the ideas within this book helped me improve the finished product, or so I hope. This very abridged list includes, at the Graduate Institute of International and Development Studies, Gareth Austin, Nicole Bourbonnais, Damian Clavel, Anca Cretu Jussi Hanhimäki, and the late Mohamed Mahmoud Ould Mohamedou. At the University of Oxford, Patricia Clavin, Ingrid de Zwarte, and the members of the Global History of Capitalism project. At the European University Institute in Florence, Corinna Unger, and my fellow scholars at the Max Weber Programme for Postdoctoral Studies and the Europe in the World research group. At the University of Geneva's Institute for Ethics, History, and the Humanities, Francesca Arena, Marie Leyder, Guillaume Linte, Dolores Martín Moruno, Philip Rieder, Minerva Rojas, Radu Suciu, and Alexandre Wenger. At the University of Zurich, Flurin Condrau and the team at the Chair for the History of Medicine.

I am thankful to the *Journal of Imperial and Commonwealth History* and *Monde(s)* for allowing me to reprint in this book passages from articles I previously published with them. My thanks also to the special issue editors and anonymous peer-reviewers of these parts of the book, including Yi-Tang Lin, Anne-Emanuelle Birn, Damiano Matasci, and Miguel Jerónimo, for their close reading and sharp feedback.

I am especially grateful to the archivists at Nestlé, the Swiss Federal Archives, and the *Archives d'Etat de Genève*, not just for their helpfulness during my many visits but also for enabling the publication of some of this book's illustrations.

In appreciation of their financial support throughout the researching, writing, and publishing of this book, many thanks to the Graduate Institute of International and Development Studies for awarding me their Excellence Scholarship, and to the Swiss National Science Foundation for funding my one-year visiting fellowship at the University of Oxford (Grant No P1GEP1 178031). In addition, open access to this book is graciously funded by the Swiss National Science Foundation (Grant No XXX), for which I am deeply thankful.

At Manchester University Press, it has been a pleasure to work with Robert Byron and Humairaa Dudhwala, who were enthusiastic and accommodating in equal measure. I am also thankful to the anonymous reviewers of past versions of this manuscript for their helpful suggestions.

I would not have been able to complete this book, had it not been for the care I received at the *Centre hospitalier Annecy Genevois*. My deepest thanks to the medical and nursing teams there, in particular the exceptional Frédéric Heluwaert.

I want to thank my mum, Corinne Besche, and stepdad, Jean-Luc Lescure, for their loving presence by my family's side through life's ups and downs these last few years. The same goes for my dear friends Cécile Angella, Isabel Beltran, Tatjana Eichert, Paroma Ghose, Efrat Gilad, and Pauline Lay, and my father Bruno Wilhelm.

Thank you, my daughter, for wanting to know what a historian is. 'Someone who tells stories that really happened', I think my reply was. Your innocent question made me want to craft one that I hope others will enjoy reading.

And to Andy Thow, dad extraordinaire and partner in outdoor adventure, for reminding me to see the funny side: thank you.

Abbreviations

ACICR	*Archives du Comité International de la Croix Rouge*
AEG	*Archives d'Etat de Genève*
AFS	*Archives fédérales suisses*
AHN	*Archives historiques Nestlé*
ANF	*Archives nationales (France)*
ANOM	*Archives nationales d'Outre-Mer*
BNF	*Bibliothèque nationale de France*
CIE	*Centre International de l'Enfance*
CSRS	*Centre suisse pour de recherches scientifiques*
CTCA	Commission for Technical Cooperation in Africa South of the Sahara
DHS	*Dictionnaire historique de la Suisse*
FAO	Food and Agriculture Organization
FR.	Swiss Franc
IAPP	International Association of Preventive Paediatrics
ICRC	International Committee of the Red Cross
IMTSSA	*Institut de médecine tropicale du Service de Santé des Armées*
INCAP	*Instituto de Nutrición de Centro América y Panamá*
IO	International Organization
IRAT	*Institut de recherches agronomiques tropicales*
IRRI	International Rice Research Institute
IRSAC	*Institut pour la recherche scientifique en Afrique centrale*
IUCW	International Union for Child Welfare
LON	League of Nations
MCH	Maternal and Child Health
MNE	Multinational Enterprise
MSF	*Médecins Sans Frontières*
NASCM	Nestlé and Anglo-Swiss Condensed Milk Company
NGO	Non-Governmental Organisation
ORANA	*Organisme de Recherche sur l'Alimentation et la Nutrition africaines*

ORSTOM	*Office pour la Recherche Scientifique et Technique Outre*-Mer
PAG	Protein Advisory Group
PMI	*Protection maternelle et infantile*
SCF	Save the Children Fund
SCIU	Save the Children International Union
SFA	Swiss Federal Archives
SHD	*Service historique de la Défense*
UN	United Nations
UNICEF	United Nations Children's Emergency Fund
USP	*Union suisse des paysans*
WHO	World Health Organization
WHOA	World Health Organization Archives

Introduction

The year 2022 was a stressful one for parents of formula-fed babies in the United States. Starting in February, a shortage of infant formula spread across the country. Although COVID-related supply chain disruptions were partly to blame, the main cause of the shortage lay elsewhere. The country's main supplier of infant formula, Abbott Nutrition, had to recall several batches of products following their suspected contamination with *Cronobacter sakazakii* and *Salmonella*. One of the firm's facilities in Sturgis, Michigan, was thought to harbour the pathogens and had to be closed temporarily.[1]

Bare shelves of infant formula dominated news headlines over the spring and summer, when up to 40 per cent of normal supplies were out of stock.[2] Shops imposed buying limits in order to prevent consumers from stockpiling. Desperate families turned to online retailers to source the precious product, sometimes only to realise they had been scammed. Others tried their hand at home-made formula recipes also found on the internet, against the advice of paediatricians and health authorities. Industrial formula is the only approved alternative to breastfeeding as an exclusive source of nutrition for a baby during the first six months of life. The worst-hit victims of the infant formula shortage were families in poor and isolated communities, who sometimes had to drive long distances, at enormous expense, in order to find a shop that stocked the product. Many of the usual consumers of the now-elusive Abbott formula were from deprived backgrounds and could only afford it thanks to help from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).[3]

In May US president Joe Biden invoked the Defense Protection Act to put exceptional measures in place, in a bid to alleviate the shortage. Domestic industries were pressed to ramp up their production capacities. Import rules on formula were eased by the Food and Drug Administration. Through Operation Fly Formula, the United States imported the equivalent of over eighty-three million baby bottles from places as far-flung as New Zealand and Ireland.[4] By the end of 2022 the situation had improved, but the shortage was not completely over.

Despite being a 'small player' in the United States with only 8.5 per cent of market share, Nestlé vowed to help 'those most vulnerable' through the crisis.[5] In order to 'help fill immediate needs' the firm started airlifting stocks of its infant formula brands Gerber Good Start Extensive HA and Alfamino from Switzerland and the Netherlands.[6] These products filled a 'critical medical purpose' because they were suited to babies with cow's milk allergies.[7] In September Tarun Malkani, the CEO of Nestlé's Gerber Products Company, declared that its company was still in 'critical task force mode'.[8]

In recent years, Nestlé has garnered widespread acclaim from the business media, being regularly named as one of the world's most reputable and valuable food companies.[9] Its rescue operation in the United States is just one example of how the firm builds up its goodwill with governments and consumers. Yet for many, Nestlé's name remains associated with controversy.[10] The roots of the company's lingering bad press can arguably be traced back to the Nestlé boycott of the 1970s.

In March 1974 War on Want, a British non-governmental organisation, published a report entitled *The Baby Killer – A War on Want investigation into the promotion and sale of powdered baby milks in the Third World*. *The Baby Killer* was a harsh indictment of the marketing practices of the infant formula industry in the developing world. It argued that medical officials in developing countries had started reporting a dramatic rise in infant malnutrition and mortality, correlating to a rise in the use of infant formula. Due to 'high-pressure advertising campaigns', it continued,

> more and more Third World mothers are turning to artificial foods during the first few months of their babies' lives. In the squalor and poverty of the new cities of Africa, Asia and Latin America the decision is often fatal. The baby food industry stands accused of promoting their products in communities which cannot use them properly; of using advertising, sales girls dressed up in nurses uniforms, give away samples and free gift gimmicks that persuade mothers to give up breast feeding.[11]

Although it recognised that the infant formula industry was not solely to blame for changes in infant feeding habits, the report sparked indignation amongst consumers and sent shockwaves worldwide. A Swiss non-governmental organisation, the *Erklärung von Bern*, translated the text into German under the provocative title *Nestlé tötet Babys* – 'Nestlé kills babies'. In 1977, religious, feminist, and developing world advocacy organisations in the United States launched a boycott against the Swiss firm, then the largest supplier of infant formula in low- and middle-income countries. The Nestlé boycott quickly gathered support around the globe, and rose to the stature of a transnational *cause célèbre*. Eventually, public pressure persuaded Nestlé and other manufacturers to adhere to the International

Code on the Marketing of Breast-Milk Substitutes, a non-binding set of rules brokered by the World Health Organization and adopted by the 1981 World Health Assembly.

Controversies over the impacts of multinational companies in the developing world have fuelled a thriving academic and popular literature in recent decades.[12] The Nestlé boycott is a case in point.[13] Yet at the same time, research into the long-term history of multinational enterprises in the developing world is still in the early stages, even if projects such as the Creating Emerging Markets at Harvard Business School have recently picked up pace.[14] MNE participation in the politics of international development has been a particularly overlooked historical topic. Using Nestlé as its vantage point, this book sheds light on this neglected history. It examines how Nestlé first encountered the idea of development in its home country, Switzerland, at the turn of the twentieth century. It follows the firm's subsequent ventures in international development in Europe, Latin America, Asia, and Africa, against the backdrop of two World Wars, the Cold War, European imperialism, and decolonisation. It unpacks Nestlé's involvement in entwined domains of international development: food production and processing, global health, and humanitarian relief.

This involvement was not a solitary pursuit. It was made possible by Nestlé's longstanding collaborations with protagonists of international development around the world, including non-governmental organisations, international organisations, international scientific communities, and imperial authorities. Although some of these protagonists became staunch critics of the formula industry in the 1970s, new evidence examined in this book shows that it was not always the case. For much of the twentieth century, development thinkers and practitioners, from European paediatricians to International Red Cross delegates, United Nations officials, and French colonial health administrators, welcomed Nestlé's participation in their respective fields.

Nestlé: a short history

With a sales revenue of 103.5 billion US dollars in 2024 Nestlé is by far the largest food and beverage company in the world, a rank it has held almost every year for the last decade against its closest competitors Anheuser-Busch and PepsiCo Inc.[15] The owner of brands ranging from San Pellegrino to KitKat, Nescafé, Maggi, Häagen-Dazs, and Friskies, the firm is emblematic of the food multinationals that came to dominate the global market in the 1970s and 1980s, following an unprecedented surge in mergers and acquisitions in the sector. As the history of the firm reminds us, however, Nestlé has been a multinational enterprise for well over a century.

The origins of Nestlé date back to the merger, in 1905, of two Swiss enterprises. The first one was the Anglo-Swiss Condensed Milk Company, founded in 1866 in Cham by two American businessmen, brothers George and Charles Page; the second, the *Société Henri Nestlé*, was founded in Vevey in 1867 by German assistant chemist Henri Nestlé.[16] Upon its creation, Anglo-Swiss manufactured sweetened condensed milk, using an industrial process first pioneered by the US firm Borden in 1853.[17] Nestlé, meanwhile, manufactured a powdered baby food sold under the trade mark 'Henri Nestlé's Milk Flour'. A dehydrated mixture of finely ground bread (*zwieback*), sugar, and condensed milk, Nestlé's formula was inspired by a recipe developed by the illustrious German chemist and nutrition science pioneer Justus von Liebig. Liebig's 'soup for infants' claimed to fulfil the digestive and nutritional needs of babies.[18] Being easier to prepare than Liebig's recipe, Nestlé's Milk Flour soon acquired the reputation of a 'miracle product' amongst the well-to-do families that could afford it.[19]

The two enterprises were established at a time of profound economic, cultural, and scientific changes when it came to infant feeding.[20] As the Industrial Revolution created a new need for female labour in factories, growing numbers of mothers abandoned breastfeeding in favour of bottle-feeding, which could be entrusted to other caregivers in their absence.[21] Wet nurses, once used by wealthy and proletarian European households alike, were falling out of grace. Traditional female knowledge in childcare was increasingly dismissed in favour of male-dominated medical expertise, which dictated new standards in infant nutrition.[22] Cutting-edge scientific research was conducted in German, French, British, and American universities in the wake of Liebig's *Animal Chemistry: Or Organic Chemistry in Its Application to Physiology and Pathology* (1842), and there was a growing medical consensus around the idea that cow's milk was the best substitute to breast milk.

Cow's milk, however, was far from an innocuous product. Hygiene issues became prevalent, with milk being ladled from the unclean containers of street vendors to the unclean containers of their customers. The uncleanliness of milk sold in European and American cities, hygienists believed, was a major cause of the upward trend in infant infections and deaths in the industrialising world. In some English cities, milk was identified as the vector of tuberculosis and typhoid outbreaks.[23] European health apparatuses therefore viewed the search for better infant nutrition as a weapon in the eugenicist and nationalist fight against 'race degeneration'.[24] It is against this backdrop that food companies started manufacturing new infant products, which quickly became popular as practical and safe alternatives to breastfeeding and fresh milk. These products included proprietary brands, such as Nestlé's Milk Flour, and cheaper alternatives such as condensed and powdered milk. Propped by advertising campaigns that targeted doctors,

hospitals, and mothers, their popularity and sales soared in the late nineteenth century.

By the early 1880s, the Anglo-Swiss Condensed Milk Company was already a successful multinational enterprise, manufacturing in Germany as well as in the United Kingdom and the United States. Nestlé, meanwhile, continued to produce in Switzerland exclusively until the early 1900s, when the company acquired two factories in Austria and Germany.[25] The management of both companies was in the hands of close-knit relatives and partners, some of whom were based outside of Switzerland. One Nestlé director took up residence in London and later Paris. One of the Page brothers temporarily relocated to the United States to oversee Anglo-Swiss factories there, until these were sold to the American firm Borden in the early 1900s. To meet a growing demand for infant foods in Europe and the colonial world, both companies developed an international network of local retailers.[26] From the reputational viewpoint, Nestlé and the Anglo-Swiss were credited with improving infant health thanks to their safety and their use of 'pure Alpine Swiss milk', a selling point frequently echoed in the Swiss and international press. As an article in the *Journal de Genève* put it in 1904,

> Although in England breastfeeding is the rule, […] in addition to breast milk, in 80% of cases, comes 'Swiss milk', which is recommended by the highest and most competent medical authorities as infinitely superior to fresh milk.[27]

Because of their milk purchases in Switzerland, and because they were opening new markets for Swiss milk abroad, the two companies were praised for their contribution to the prosperity of Swiss agriculture; an argument that Nestlé used to obtain tax rebates in the 1880s and 1890s. From the very onset, Nestlé and Anglo-Swiss were involved not just in food, but also health, agriculture, and international trade. These four themes were portrayed as indissociable components of the firms' contribution to the betterment of living conditions in Switzerland; in a word, to development.

By the turn of the century, both companies generated profits in the region of 3 million francs per year.[28] But competition between them was fierce. In the 1870s, Anglo-Swiss started producing its own powdered baby formula. Nestlé retaliated by launching its own brand of condensed milk. The last two decades of the nineteenth century saw several rounds of negotiations aimed at a merger between the two concerns fail. These plans finally came to fruition in 1905, giving birth to the Nestlé and Anglo-Swiss Condensed Milk Company (NASCM). In terms of productive capacity, the new company owned eighteen factories scattered across Switzerland, Germany, the United Kingdom, the United States, Norway, and Spain. In 1906, it acquired

a factory in Australia. '*La Nestlé*', as the firm was commonly called in the Swiss business press, now spanned three continents.

The first decade of the newborn company's history (1905–14) unfolded in the long shadow of its two parent companies. The firm now had two headquarters, Vevey and Cham, and maintained its historical Paris and London outposts. On the managerial side, the old guard remained at the helm. Many Nestlé and Anglo-Swiss directors retained their previous positions, which led to some tensions when it came to apportioning their respective powers in the new company. New Nestlé companies were established in several European countries, joining an increasingly intricate network of factories, depots, and local dealers. New reputational challenges also emerged. Nestlé, critics argued, had previously encouraged Swiss farmers to convert to dairy farming. It was now ruthlessly pushing milk prices down, and was scheming to stop manufacturing in Switzerland altogether. The firm's social and economic responsibility towards its home country came under public and political scrutiny, forcing Nestlé to defend its record by emphasising its long-held commitment to the development of Swiss society.

These tensions abated during the First World War (1914–18). As the Swiss industries were recruited in the wartime effort, Nestlé earned the gratitude of Switzerland's urban classes by providing milk to Swiss cities. In exchange for this 'sacrifice', as the firm liked to put it, the Swiss government granted it precious waivers from wartime export restrictions. New collaborations started taking place between Nestlé and humanitarian organisations, not least the International Committee of the Red Cross. Through these humanitarian activities, the firm found a new international platform to promote its purported commitment to child welfare.

But new misfortunes awaited Nestlé at the end of the war. In the early 1920s, owing in part to the firm's indebtedness, its shares plummeted on the stock market, leading to a serious financial crisis between 1922 and 1924.[29] The appointment of a notoriously ruthless new chairman, Swiss banker Louis Dapples, heralded deep changes.[30] With the dismissal of several aging directors and the appointment of professional managers, he masterminded the transformation of the firm's managerial culture, typifying the trend famously described by business historian Alfred Chandler.[31] Dapples also accelerated the establishment of national Nestlé companies abroad to oversee local manufacture and sales. Spurred by the epoch's protectionism, this strategy was designed to eschew rising tariffs as well as reduce transportation and production costs. These changes culminated in 1937 with the creation of two holding companies: the Nestlé and Anglo-Swiss Condensed Milk Holding Company Limited (sometimes referred to as Nesthold), headquartered in Cham and Vevey, now in control of the group's companies in the Eastern hemisphere; and its counterpart for the Western hemisphere, UNILAC, headquartered in Panama.[32]

The inter-war years (1918–39) also witnessed the firm's first industrial ventures on new continents: South America, Africa, and Asia. This industrial expansion required Nestlé to create or modernise local dairy sectors, and to build factories in Brazil, Argentina, Cuba, Chile, Mexico, and Panama; in South Africa; and in Japan and China. This industrial expansion was not only geographical but also encompassed new segments of the food market. In 1927, Nestlé acquired the Swiss-based multinational enterprise Peter, Cailler, Kohler, a chocolate and confectionary manufacturer. Convinced of the importance of research and development, Dapples ordered the building of new research laboratories in Switzerland. The investment paid off: in 1938, the firm launched Nescafé, the first instant coffee, which quickly achieved enormous commercial success.[33]

These innovations notwithstanding, infant feeding remained Nestlé's primary focus, and during this period Nestlé's industrial and marketing strategies in this field also underwent significant changes. As mentioned earlier, milk-borne infections had once been a major concern of doctors and public health authorities in the industrial world. They had been a reason for the early commercial success of Nestlé's products. In the inter-war period however, the spread of pasteurisation and improvements in dairy production, transport, packaging, and distribution meant that uncontaminated fresh milk was now widely available in the industrial West.[34] The attention of infant nutrition experts started shifting from infectious diseases to newly discovered pathologies, such as dyspepsia and vitamin deficiencies. Although Nestlé's historic products remained popular with customers, their main selling point – their hygiene and safety – was becoming outdated. The firm's response was twofold. First, its laboratories started elaborating new infant formulas in order to address evolving medical and popular priorities in infant nutrition. Pelargon, to name but one of the new dietetic specialties launched by Nestlé in the 1930s, was an acidified milk marketed for infants who did not tolerate cow's milk well. Secondly, Nestlé developed new partnerships with public health and clinical research institutions in Switzerland and Europe. In addition, it started making contact with non-governmental and international organisations dedicated to child health and protection, not least the Save the Children International Union, based in Geneva. These partnerships did not only enable the firm to reaffirm its commitment to scientific nutrition, but also to gain influence over the production of scientific knowledge and public policy in the fields of child nutrition and welfare, not just in Switzerland but also on an international scale.

During the Second World War (1939–45), Nestlé's leadership was partially relocated to Stamford, in the United States. From this new base, the firm's chairman, Edouard Muller, managed Nestlé's affairs in the Americas and Great Britain. In the meantime, the firm's business in continental Europe

was overseen by a caretaker management team in Switzerland.[35] Although financial reports for that period are missing, the company appears to have thrived during the conflict. While the repatriation to Switzerland of profits generated by Nestlé's national companies in German-occupied Europe was hampered, the firm benefitted from large government orders on both sides of the conflict. The war also enabled the expansion of Nestlé's partnerships with humanitarian organisations, something that proved mutually beneficial. On the one hand, NGOs appreciated Nestlé's financial and operational support. On the other, the firm enjoyed the diplomatic and economic perks of trading with international humanitarian organisations, and the reputational benefits of this association. Nestlé's humanitarian ventures were not an unmitigated success, however. At the end of the war, a Swiss court found Nestlé guilty of having misled the Red Cross over the quality of its supplies of condensed milk.

The post-war decades (1945–75) heralded Nestlé's transformation into a multinational behemoth. On the production front, Nestlé continued its expansion in Asia, Africa, and the Middle East, where dairy, chocolate, and instant coffee factories cropped up – alongside new depots and national Nestlé companies. With its 1947 acquisition of the Swiss multinational company Maggi, the firm, renamed Nestlé Alimentana, added condiments and instant soups to its portfolio of best-selling products.[36]

Like at other points in its past, Nestlé was also forced to adapt to changing societal and scientific expectations regarding food, and to new geopolitical circumstances. In a world at grips with the challenges of post-war reconstruction, the rising tensions of the Cold War, and anticolonial movements, these changes were monumental indeed. According to the newly created agencies of the United Nations, agricultural overproduction, economic depression, and poor nutritional health had plagued the inter-war period. Spearheaded by American foreign policy and international organisations, and reluctantly endorsed by colonial powers, the post-war discourse of international development proposed to stop these scourges from reoccurring. It would do so by lifting the underdeveloped world out of poverty through loans, grants, and technical assistance.

Sensing future opportunities, Nestlé directors were keen to take part in the formulation and implementation of this agenda. To do so, they built on the firm's past experiences in agriculture and public health in Switzerland, its longstanding humanitarian partnerships, and its ongoing expansion in the developing world. In the 1950s and 1960s, Nestlé contributed to programmes run by the Swiss technical cooperation administration, United Nations agencies, and French colonial research institutes. It allocated financial and human resources to agricultural modernisation, nutritional health, and food technology projects in different regions of the developing world,

including Latin America, South Asia, and West Africa. The year 1967 marked the creation of the Nestlé Foundation for the Study of the Problems of Nutrition in the World. As well as reaping reputational benefits from these post-war development initiatives, Nestlé used them to develop and test new products, to increase its clout in international policy-making circles, and to access new markets across the developing world.

In the late 1970s the Nestlé boycott cast dark clouds over Nestlé's previously sunny relationship with international development. An epilogue to this book's main story, the firm's recent history (1975–2025) has been peppered with high-profile clashes with humanitarians, human rights activists, and international organisations. Today, medical warnings over ultra-processed foods and their suspected role in the global obesity crisis continue to stoke the controversy over Nestlé's role in global public health.[37] But the impact of these disputes on the firm's commercial success has been limited. In the wake of a string of mergers, Nestlé S.A., as the firm was renamed in 1977, became one of the largest global food manufacturing companies, competing with and eventually overtaking its main competitors Unilever and Kraft Foods.[38]

As this account suggests, Nestlé's history is laced with initiatives that claimed to improve food, agriculture, and health both in the industrialised world and the Global South. It is also punctuated with criticism of the firm's interventions in these very same fields. This book seeks to make sense of this perennial tension. It shows how a multinational enterprise has been involved in shaping the ideas and practices of development throughout the twentieth century. It weighs the costs and benefits of this involvement for the firm and its development partners. It examines how this involvement changed over time, and how it travelled and adapted to new local and international contexts. It scrutinises how the firm learnt from and responded to controversy. In sum, it sheds light on the neglected history of business participation in the politics of international development.

Concepts and topics

But what, exactly, does international development stand for? The last two decades have witnessed a boom in the historical literature on the topic, sometimes also referred to as 'global' development or simply 'development'. Through its lens, historians have uncovered new narratives in the otherwise well-established history of the Industrial Revolution; of medicine, science, and technology; of modern warfare; and of European imperialism. Development has even spawned its own, thriving field of scholarship, the

so-called 'development studies'. And yet development remains an elusive historical concept.

One of the earliest definitions of development was forged by diplomatic history. Development, authors belonging to this historiographical tradition posit, encompasses the economic theories, geopolitical strategies, international organisations, and technical programmes that emerged in the wake of US. president Harry Truman's famous 'Point Four Program' in 1949.[39] As Walt Whitman Rostow and other economists saw it, development was the process through which 'underdeveloped' countries could modernise and ultimately catch up with the industrialised Western world. This idea of development grew and thrived in the context of the Cold War and of the fall of the European Empires, culminating during the United Nations Development Decade in the 1960s. Then, in the wake of the 1970s oil crisis and 1980s developing world debt crisis, it came under attack. According to left-leaning dependency theory scholars, development was a myth deployed to further American economic and geopolitical hegemony, and defeat socialism.[40] For neoliberal thinkers, it was a doctrine doomed to failure due to its heavy reliance on State intervention and its disregard for free-market principles.[41]

But development has also been used much more broadly to refer to a myriad of international and imperial schemes aimed at 'improving the human condition', to borrow James C. Scott's phrase, since the nineteenth century.[42] This definition of development coins it as a long-term global process; a disparate set of actors, ideas, and programmes loosely bound together by a common aspiration: alleviating suffering and improving the living conditions of those least fortunate. Historians adopting this definition of development have shown that its motives have been complex, ranging from altruism to self-interest. Their consequences for the receiving populations, meanwhile, have been bleak at times, as the history of imperial development and colonial medicine projects has sometimes shown.[43] Food insecurity, epidemics, and armed conflicts have sometimes followed in the footsteps of development interventions.

Although perhaps perilously broad, this definition of development presents the advantage of bringing to the fore its long-term transnational history. It encompasses governmental, intergovernmental, colonial, and private non-governmental schemes. It spans international grants and loans, infrastructural and socio-economic improvement programmes, scientific collaboration, and technology transfer. It also questions the traditional focus of the development literature on the viewpoint of the 'developers'. Instead, it tries to analyse development as a transaction – albeit an unequal one – between the authors and the purported recipients of development programmes, and the various intermediaries between them.[44]

Importantly, this definition also trumps the academic divide between state-building, development, and humanitarianism. In other words, it rejects the idea of a natural rift between long-term transformative projects and short-term emergency relief. In the 1990s and 2000s, aid practitioners tended to view these two sectors as both historically and operationally separate. Yet as their long-term history shows, they have in fact always been two sides of the same coin, often even within the same organisations.[45] This book refers to development in this latter sense: as a mature, protean aid industry.

Multinational enterprise (MNE) is the next concept I would like to clarify here. Defined by business historians as companies 'composed of a parent enterprise that controls the assets of entities in countries other than its home country plus the foreign affiliates of that parent enterprise', MNEs have received considerable historiographical attention since the 1970s.[46] Perhaps more than any other type of business, they have had 'an impact on almost every sphere of modern life'.[47] While it would be impossible to do justice to the vast historical literature on MNEs in a few paragraphs, some of the key aspects of the history of MNEs in relation to development and the Global South are worth unpacking here.

Economic historians have long acknowledged MNEs as important actors. Unsurprisingly, the role of MNEs in the economy of the Global North has been one of the best-researched aspects of their history. According to historians of Switzerland, for instance, the country's tradition of offering a safe haven for MNE headquarters has been one of the sources of its clout on the economic world stage since the nineteenth century.[48] On the flip side, there is still room for growth as far as research into the historical role of MNEs in the economies of the Global South is concerned.[49] Early forays in this field date back to the 1970s. Back then, development scholars sought to quantify the impacts of foreign MNEs on employment, foreign direct investment, productivity, technology transfer, the trade balance, and regulatory regimes in what we could call developing host countries.[50] Although others have since followed suit, more research in that field remains needed.

But there is more to the global history of MNEs than their role in the economy *stricto sensu*. MNEs have also participated in many other aspects of public life, including politics, science, and culture.[51] Business participation in national politics has been a popular field of historical research since the 1960s, not least in the United States where it has been closely enmeshed with other branches of national history – the history of the Progressive Era and of organised labour, to name but two.[52] The appointment of businesspeople to political offices, welfare capitalism, corporate lobbying, the provision of public services by private companies (such as telecommunications and transport infrastructures), corporate philanthropy, are just a few of the ways through which business, multinational or not, has been shown to steer

domestic politics. Corporate influence in science and politics has been documented, especially in the United States, in the fields of public health and environmental regulation.[53]

But what of corporate influences in politics, beyond the confines of national polities? MNE involvement in world affairs is the next layer of their history that I would like to disentangle here.[54] One way historians have addressed this topic has been to investigate the involvement of businesspeople in diplomacy and foreign policy, especially during the major conflicts of the twentieth century.[55] The wartime record of some businesses, in fact, has garnered interest beyond academia. In 1996, in light of shocking revelations regarding the role of Swiss banks in the plunder of Jewish assets during the war, the Swiss Federal Council appointed an Independent Expert Commission. Its members, mostly professional historians, were tasked with investigating links between major Swiss companies and the Nazi regime.[56]

Finally, this overview would not be complete without an acknowledgement of the company case study as a particularly useful angle on the global history of multinational business, as the histories of Unilever and Tata demonstrate.[57] However, all this rich literature notwithstanding, we still have a lot to learn when it comes to the historical role of MNEs in the emergence and evolution of international development.[58] Through its investigation of Nestlé, this book sheds light on this little-known phenomenon.

The third and final pillar of this book is food. As historian James Vernon has argued, it is in the late nineteenth century that the topic of hunger started looming large amongst Western policy-makers, humanitarians, and scientists.[59] At that time, famines in Europe and the colonial world brought home the fact that hunger posed a threat to the demographic vitality, economic productivity, and political stability of the Western world. What was more, the problem largely eluded national boundaries. In the industrialising, low-tariff world of the turn of the twentieth century, food production, processing, transport, and consumption were stubbornly transnational and imperial affairs. The First World War and its aftermath brought into even sharper relief the interdependence of nations and empires when it came to food security.[60] European policy-makers had once adopted a *laissez-faire* approach during some of the most devastating famines of the nineteenth century, including the 1845–52 Irish famine and the 1876–78 Indian famine. Their successors, by contrast, had strong incentives to act.[61]

From the 1920s onward, the challenge of hunger became a central preoccupation for officials in Western and colonial administrations, the staff of humanitarian, philanthropic, and international organisations, and medical researchers. In 1921, the High Commissioner for Refugees, Fridtjof Nansen, lamented that 'Argentina is burning its grain surplus; America is letting its

corn rot in its silos; Canada has more than two billion tons of leftover grain – and yet, in Russia, millions are dying of hunger'.[62] Hunger fanned the flames of Communism and anti-colonialism in the non-Western world. The solution to the problem, international organisation officials believed, rested on four cornerstones: effective emergency famine relief; improved agricultural production worldwide; its adequate distribution through a global free market; and the improved medical management of nutrition at population level.[63] International development was taking root, and food was a nodal point between its main branches: agriculture, health, and trade. The Second World War only accelerated this momentum. During the conflict, the science of food and starvation made leaps and bounds both in the Allied and Axis spheres of influence, not least in Europe's colonial empires.[64] From 1945 onward, Cold War superpowers, colonial governments, and international organisations put their expertise on these topics at the service of international food programmes. But as regime changes swept across the Latin American, Asian, and African continents, new visions of food sovereignty challenged this approach.[65]

Food has also been at the heart of Nestlé's business empire, as has been the imbrication of medicine, agriculture, international trade, and philanthropy. From the onset, the success of the company's products relied on their endorsement by doctors. Trumpeted in the firm's advertising and packaging, these medical credentials helped coin Nestlé's products as essential commodities. In return, Nestlé went out of its way to earn the trust of doctors and public health authorities. It did so through philanthropic programmes, and by donating products and equipment to the medical community. Meanwhile, during the conflicts of the twentieth century, Nestlé's milk became a staple of wartime rations and of humanitarian parcels, perhaps more so than any other brand. To back its growing commercial success, the firm required a reliable and safe supply of milk, something it achieved by building long-term (if not always scot-free) relationships with local farmers and by modernising local dairy supply chains. Having first taken shape in Switzerland, Nestlé's complex relationship with medicine, agriculture, and humanitarianism travelled and adapted to new contexts abroad, and on the scene of global development.

In 1973, Nestlé's chairman Pierre Liotard-Vogt declared before an assembly of business leaders that 'only large international enterprises' such as Nestlé were in a position to help 'countries that wished to step out of underdevelopment'.[66] Two years later, a corporate publication entitled *Nestlé in the developing countries* further detailed the firm's contribution to development.[67] The total spending of Nestlé companies in the developing countries, it pointed out, amounted to 3 billion francs, of which 72.7 per cent was spent locally and only 27.3 per cent was repatriated (including for the

payment of imports, dividends, and royalties). Nestlé, the report argued, was therefore a positive force for these countries:

> While Nestlé is not a philanthropic society, facts and figures clearly prove that the nature of its activities in developing countries is self-evident as a factor that contributes to economic development… Nestlé's presence in the Third World is based on common interests in which the progress of one is to the benefit of the other.[68]

Some thirty years later, in a report entitled *L'Engagement de Nestlé en Afrique*, the firm's CEO Peter Brabeck-Letmathe affirmed that Nestlé had 'learnt enormously from its experience in Africa' in the wake of the accusations against formula manufacturers in the 1970s, and that Nestlé's 'long-term business commitment to Africa benefits both companies and the people of Africa'.[69] Nestlé's past experiences of development, as we see, still resonate in the firm's public discourse on the Global South. In chronicling Nestlé's development adventures, this book interrogates corporate involvement in international affairs in the past and today. How have multinational firms shaped the ideas and practices of global development? How did other actors of the aid industry react to and negotiate corporate incursions in their field? How did business strategies in development travel and adapt across different local and international contexts? These are some of the questions that this book addresses.

Part I focuses on Switzerland, a homeland that Nestlé executives considered as their 'initial centre of experimentation' or, in other words, their laboratory.[70] This first part offers a background history of Nestlé and of its early experience of development politics at home (Chapter 1), from the company's founding in the mid-1860s to the aftermath of the First World War. Chapter 2 describes Nestlé's involvement in public health and medical research from the inter-war period to the 1950s. Chapter 3, meanwhile, documents Nestlé's experience with humanitarian organisations from the First to the Second World War.

Part II moves on to examine the internationalisation of Nestlé's development vision in the second half of the twentieth century. In Chapter 4, we follow Nestlé's nascent partnerships with development agencies in the post-war period, from Central America to India. Chapter 5 takes us to late colonial and early postcolonial West Africa, where Nestlé implemented new strategies in the field of nutrition. Finally, Chapter 6 zooms in on the rise and fall of the Nestlé Foundation for the Study of Nutrition Problems in the World in the Ivory Coast from the 1960s to the 1980s.

Notes

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Part I

The Swiss laboratory

1

At the service of agriculture

> Nestlé are closing their factories, once their fortune has been made. The only people one should feel sorry for are the workers who are left down and out.[1]

Neuchâtel's socialist newspaper *La Sentinelle* was not known for mincing its words. According to its coverage of the closure of nearly every Nestlé factory in Switzerland in 1921, the main reason for this debacle was the firm's rapacious search for profits. The liberal-leaning *Journal de Genève* disagreed. Nestlé, it argued, was nothing but a victim of the greed of Swiss farmers, who demanded impossibly high prices for their milk instead of striving to remain competitive on the international market:

> Other factories are also faced with the necessity to denationalise themselves. It is now down to Swiss milk producers to decide whether they want the Swiss condensed milk industry to remain a national industry in the future, or whether they want to force it to leave our country completely.[2]

While they voiced opposite political views, the two newspapers implicitly agreed on one thing: Nestlé had once brought prosperity to Switzerland, and its departure abroad spelt trouble for the country. Yet in reality, the history of the country's dairy industry had been a turbulent one ever since its creation.

In the last decades of the nineteenth century, Nestlé and its main competitor, the Anglo-Swiss Condensed Milk Company, were considered a boon for Switzerland's agriculture, and for the country more generally. Buoyed by the rapid growth of their sales abroad, the two firms represented a lucrative business for Swiss dairy farmers. In the wake of the Great Depression of the 1890s, however, relationships between dairy farmers and the dairy manufacturing industry started to sour. As milk prices plummeted on an international scale, Swiss farmers attempted to form a united front against this downward pressure. Agrarian associations such as the *Union suisse des paysans* (USP), which was founded in 1897, and those who represented

their views in the Swiss parliament, demanded the introduction of protectionist tariffs. In the first decade of the twentieth century, farmer unions became entrenched in a series of 'milk wars' against Nestlé. The firm now claimed to defend consumers against greedy farmers.

The outbreak of the First World War temporarily swept these disputes aside. Like in other European countries, the conflict exposed the limits of Switzerland's *laissez-faire* attitude toward the food market. It ushered in a new era of State supervision in this field.[3] Nestlé played an ambivalent role at this delicate juncture of Swiss history. As the war caused Switzerland's food reserves to run low, the company volunteered to cede parts of its milk supply to Swiss cities. In return, Swiss authorities granted the firm special privileges. Although both Nestlé and the Swiss government presented them as crucial to the country's economic survival, these arrangements came under fierce criticism at the end of the war, when Nestlé's comfortable wartime profits became publicised.

These events had one thing in common. They all called into question the role and responsibilities of a multinational company in a globalised world, and the place of the State in defining and regulating this role. Economic historians Fernand Braudel and Immanuel Wallerstein have described globalisation as the expansion of the capitalist world economy.[4] Starting with the trading companies of the early modern period, multinational enterprises have been conspicuous actors of this historical process. Yet their exact role in it has often been overlooked. Switzerland and the food industry afford valuable insights into the history of MNEs and globalisation. As a proverbially 'small but extraverted' economy, the country has played an outsized role in globalisation, as have its multinational enterprises.[5] 'Of the fifty most important industrial multinationals of the late 1970s', Paul Bairoch once wrote, 'Switzerland had six, and all six (Nestlé, Ciba-Geigy, Brown-Boveri, Roche-Sapac, Sandoz et Sulzer) had begun their activities abroad before 1915'.[6] Just as importantly, food has also been at the core of debates on globalisation.[7] It has crystallised the tensions between the local and the global; the public and the private; tradition and science; and the many players of the political economy of food.

As the largest Swiss transnational food firm, Nestlé offers a unique perspective on these debates. The history of its role in Switzerland's agriculture allows us to disentangle the braided histories of food, globalisation, and MNEs. In more than one way, these histories set the tone of Nestlé's involvement in international development.

Modern milk

Profound changes were at play in the food habits of industrialising countries in the nineteenth century. The history of milk epitomised these

transformations. Starting in the 1800s, demand for the stuff increased sharply in the industrialising world. There were several reasons for this spike. First, new scientific research in nutrition started sanctifying so-called 'nitrogenous' foods, especially animal proteins, deeming them an indispensable part of the human diet.[8] A cheaper alternative to meat, dairy products benefitted from these discoveries. Secondly, in a context of decreasing breastfeeding rates amongst women across the class spectrum, medical authorities started to promote the use of cow's milk as a 'perfect' substitute to breast milk.[9] Thirdly, in the wake of Louis Pasteur's bacteriological discoveries in the 1860s, State regulators started introducing new hygiene standards at all levels of the dairy supply chain, in the hope of reducing the health hazards linked to adulterated and unclean milk.[10] Milk was no longer considered just any food; it became a vital commodity and a matter of public interest.

Change was palpable on the side of milk production too. Though human communities had herded mammals for millennia for food and animal power, rural historians generally argue that until the nineteenth century, dairy was primarily consumed in the form of butter and cheese, with meat an occasional if welcome by-product of mammal rearing. A highly perishable good, fresh milk was all but impossible to transport, and therefore only tended to be consumed by families who owned a goat or sheep. This changed with the modernisation of cattle and dairy farming. As data from several European countries shows, cattle populations, milk yields, and gross milk production all rose steadily between 1865 and 1930 (See Table 1.1).

Several factors explained this rise. The increased demand for dairy products was one of them. Advances in agronomy and animal husbandry was another. Like schools and prisons, farms were becoming a focus of academic expertise and scientific research, and benefitted from State subsidies.[11] Meanwhile, new infrastructures and technologies such as railways and milk wagons helped integrate more farms into the growing milk market. The liberalisation of the international grain trade in the mid-nineteenth century also gave farmers access to cheaper cattle feed.[12] The Great Depression of 1873–96 caused a further collapse of cereal prices, and incentivised farmers to convert to cattle breeding, a sector less harshly affected than cropping. Despite the fact that milk production was soaring everywhere, the expanding demand for milk continued to buoy the milk business until the late 1890s.

But signs of market saturation started to appear in the late nineteenth century, and with it came new tensions. In protest against dwindling milk prices, farmers staged milk strikes and blockades of milk-processing factories in California and New York in the 1880s.[13] The dairy farming profession was often disunited, however. Because modern dairy farming required high capital investments to buy cattle, feed, and equipment, small farms struggled to stay in business, and competed with each other as well as with

Table 1.1 Cattle and dairy in Europe, 1865–1930.

Year	*UK*	*France*	*Switzerland*	*Holland*	*Denmark*
	Total bovine population (in thousands)				
1865	2,139	6,587	553	860	899
1900	2,607	6,738	688	962	1,089
1910	2,775	7,603	797	1,084	1,282
1920	2,942	7,590	752	1,077	1,322
1930	3,159	8,265	865	1,341	1,579
	Average output per cow (litres per year)				
1865	1,590	1,222	1,938	2,350	1,553
1900	2,135	1,291	2,350	2,659	2,428
1910	2,540	1,434	2,893	2,632	2,670
1920	2,550	1,647	2,588	2,528	2,736
1930	2,603	1,694	2,877	3,239	3,216
	Gross milk production (millions of litres)				
1865	3,401	8,050	1,071	2,021	1,396
1900	5,566	8,700	1,617	2,558	2,644
1910	7,049	10,900	2,306	2,855	3,422
1920	7,502	12,500	1,948	2,723	3,619
1930	8,222	14,000	2,490	4,343	5,077

Source: Reproduced from Ismael Hernández Adell and Josep Pujol-Andreu, 'Economic Growth and Biological Innovation: The Development of the European Dairy Sector, 1865–1940', *Rural History* 27, no. 2 (2016): 189.

larger ones. This disunity of the sector meant a weaker bargaining position with clients and with the State institutions in charge of regulating the milk market.[14]

Like in the rest of the industrialising world, a reorganisation of the dairy sector was on the cards in Switzerland. The nineteenth century saw Switzerland experience rural depopulation. Farmers made up nearly half of Switzerland's population in 1848, but only a quarter of it in 1910. As many small farms gradually disappeared, larger estates replaced them. To offset the new financial risks posed by the transition to modern intensive farming, farmers started pooling resources into insurance, credit, and sale cooperatives and a hygiene inspection system.[15] By 1900, eighteen such agricultural associations were active at state (or *canton*, as they are locally known) level.[16] As an increasingly well-organised political constituency, the farming sector was, from 1897, represented on the national scale by the *Union suisse des paysans* (USP). An umbrella organisation dedicated to defending farmers' interests in the institutions of the Swiss Confederation, the USP lobbied for protective tariffs.

The Swiss federal government too recognised the rising political, economic, and nutritional importance of the agricultural sector. Created in

1883, its Division of Agriculture started funding agronomic training and research centres. Animal husbandry, pest control, and agricultural statistics were just a few of the disciplines now taught in state and federal experiment stations.[17]

The Belle Epoque

It is against this backdrop that two industrial manufacturers of dairy foods, Nestlé and the Anglo-Swiss Condensed Milk Company, hit their stride as major players of Swiss agriculture. Nestlé's trajectory illustrated their rise from modest food businesses to national champions. Born in Frankfurt am Main in Germany in 1812, Henri Nestlé emigrated in his twenties to Switzerland, where he qualified as an assistant chemist. A moderately successful entrepreneur, he spent the following decades dabbling in various trades, including the manufacture of groundnut oil, spirits, and soda. His fortune changed when he perfected the recipe of his soon-to-be-famous infant food, Henri Nestlé's Milk Flour. Production started in Vevey, on the shores of Lake Geneva, in 1967. Within a few years, the reputation and sales of Henri Nestlé's Milk Flour soared thanks to word of mouth and to its inventor's marketing acumen. By sending free samples of his product to medicine celebrities and asking them to test it on their patients and families, he managed to obtain flattering endorsements and testimonies which he printed on his advertising posters and labels. He also chose to sell his Milk Flour in pharmacies exclusively, thereby further strengthening its scientific credibility. By the middle of the 1870s, Nestlé was selling half a million tins of Milk Flour around the world every year, including in the United States of America, Mexico, the Dutch Indies, and Australia. An aging man, however, Nestlé was looking to retire. In 1875, he sold his enterprise to three local financiers, Jules Monnerat, Pierre-Samuel Roussy, and Gustave Marquis, for 1 million francs.[18] The trio transformed the business into a fully fledged public company, which they named after its founder, 'Farine Lactée Henri Nestlé'. Some three years later, the Anglo-Swiss Condensed Milk Company, a condensed milk manufacturer based in Cham, a town in the canton of Zug, launched a rival brand of powdered infant food. In response, Nestlé started producing its own brand of condensed milk that same year. Until their eventual merger in 1905, the two firms became entrenched in a cut-throat competition.[19]

The Swiss public first became acquainted with Nestlé's growing national sway when the company, whose only factory in Vevey had become unable to meet the growing demand for Nestlé's products, purchased a second factory in 1880. The *Gazette de Lausanne* was enthusiastic. The new factory, it predicted, was bound to bring 'a great momentum to industry and agriculture'

in the whole canton of Vaud.[20] And so it appeared to do. Over the next years, Nestlé constantly expanded its pool of milk suppliers. The firm purchased its milk from eighty-six localities in 1887; by 1893, this figure had jumped to 265.[21] Soon, neighbouring states such as Fribourg also increasingly benefited from the 'very remunerative' prices offered by Nestlé.[22]

For farmers, dealing with Nestlé meant a guaranteed, predictable income for a whole year. Milk farmers usually sold their produce to a variety of clients: cheese producers, urban cooperatives, and the manufacturing industry. Prices could vary significantly. Nestlé, by contrast, required a predictable, year-round supply of fresh milk. For that reason, it contracted suppliers on a yearly basis at a price agreed in advance, and committed to buying their entire output.[23] Nestlé, it should be noted, was not solely responsible for this stabilisation of farmers' incomes. Milk purchases were becoming increasingly standardised as a result of farmers joining forces through federations. Yet the firm was particularly keen to endear itself with farmers. In 1893, in the midst of the Great Depression, it announced that having considered the crisis through which Swiss agriculture was going through, it would voluntarily apply a premium of 1 cent per kilogramme of milk to all its contracts. This reportedly amounted to a 'sacrifice' of over 150,000 francs.[24] Similar voluntary price rises were occasionally reported until the early 1900s.[25] Nestlé, in a nutshell, protected Swiss farmers against the vicissitudes of the international market.

There were further advantages to the firm's expansion. In order to transport its growing supply of milk, Nestlé had to commission the building of a new railway network in Vaud. It was completed just in time for the opening of its third factory in Payerne in 1890.[26] By its own account, the firm also contributed to modernising the Swiss dairy sector by establishing stringent standards. It established strict cattle feeding rules and hygiene controls.

The company was further credited with supporting Switzerland's agricultural economy on a more structural level. As the *Feuille d'avis de Vevey* noted in 1887, farmers had to start turning to cattle breeding and milk production as a result of the collapse of the price of grains on the global market.[27] Between 1865 and 1910, total Swiss milk production more than doubled, rising from 1,071 to 2,306 million litres (see Table 1.1). The dairy manufacturing industry had helped make the reorientation of Swiss agriculture from cereal to milk economically viable. It was therefore no wonder, the *Journal de Genève* remarked, that one of Nestlé's administrators, Roussy, was a popular figure in the whole canton of Vaud.[28] He ran as a Liberal candidate in local elections and, unusually for a member of a party known for its defence of urban elites, was expected to be a staunch ally of the farming sector. As the same newspaper put it some years later, Nestlé's astute marketing of Swiss milk overseas had 'opened outlets in the most

remote countries' for the product. Its 'admirable' factories were 'introducing by force, so to speak, Swiss milk on all markets; and [making] it enter numerous places where neither cattle, butter, or cheese would have gone'. The firm was, simply put, an industry 'at the service of agriculture'.[29]

As a matter of fact, the picture was more nuanced. First, if Nestlé had helped Swiss agriculture, the reverse was also true. The Swiss farming and tourism industries had been the main architects of Switzerland's international reputation as a bucolic Alpine paradise since the mid-nineteenth century. Nestlé drew liberally on this iconography in its advertising abroad.[30] Secondly, and although data remains very patchy, in reality, the milk condensing and dehydrating industry only ever absorbed a small proportion of Switzerland's milk production. Around the mid-1870s, Nestlé's purchases amounted to only 1 per cent of total Swiss milk production'.[31] At the peak of its activity in Switzerland in the early 1900s, this figure may have risen to a maximum of 5 per cent.[32]

For now however, there seemed to be little doubt in the minds of Swiss commentators that the activity of the Swiss dairy industry, and in particular its activity abroad, benefitted the country as a whole. Nestlé was quick to recognise the positive coverage of its activity as an opportunity to negotiate fiscal advantages. In the late 1880s, backers of the milk condensing industry in the Swiss parliament proposed to lift import duties on the sugar used to manufacture products that were subsequently exported. For the defenders of the measure, the interdependence between farming and industry was obvious:

> Agriculture needs to be supported, and the milk condensing industry is an important source of revenue for it. Everything that tends to make this industry prosper will have a beneficial influence on agriculture.[33]

Maintaining import duties on sugar, they further argued, would have disastrous consequences: they threatened to bankrupt milk-condensing factories, and they might force them to move production abroad. As a member of parliament put it,

> Today, the condensed milk factories seek, in order to avoid the entrance duties on sugar, to establish branches outside. There are already some in America and England. We need to stop this movement. […] [Companies] don't have a great interest in staying in Switzerland; those that do not have branches abroad have almost entirely disappeared. We need to retain this great manufacture at home.[34]

Bankruptcy and delocalisation would have an adverse impact on farmers.[35] These arguments proved persuasive enough: the drawbacks, as the measure

was known, were approved for a three-year period in 1889.[36] At 100,000 and 60,000 francs respectively, Nestlé and Anglo-Swiss claimed the lion's share of the total of 200,000 francs of the rebate awarded to the industry.[37] Together, the two firms held a quasi-monopolistic position in Switzerland's milk condensing industry.

If Nestlé was praised for its commercial performance and role in agriculture, the same was also true of its perceived contribution to the betterment of Swiss society more generally. At home, first, Nestlé was congratulated for its 'democratic and humanitarian' considerations, which set it apart from more unscrupulous businesses:

> The Swiss companies, realising the hygienic role that their products play in public food consumption, have always strived to conciliate their own interests with those of the public by pricing their products at the most moderate rate. The actions of 'trusts', in which the consumer public is always the victim, are not the style of these companies.[38]

Nestlé's expansion was also considered virtuous when it came to its impact on the Swiss workforce. The firm guaranteed 'the occupation of a higher number of workers, and full working days for those already employed, and this just at a time when everywhere one hears of complaints of unemployment'.[39] It set up workers' clubs and life insurance schemes, thus helping reduce poverty, idleness, and alcoholism, scourges that the paternalist employers and the social reformers of the late nineteenth-century condemned in unison.[40] 'Bosses', the *Journal de Genève* affirmed, were not 'gutless people'; 'on the contrary, a lot of them think about the moral development and material prosperity of their workers, at least as much as about their own dividends'.[41]

The Swiss milk condensing industry was also commended for polishing Switzerland's reputation abroad. Patriotic and eugenicist considerations were central to the quest for safe, nutritious foods across the Western world, and as a member of the Swiss expatriate community of London noted, his country now played a key role in this quest:

> I can affirm without fear of being contradicted that the Swiss dairy industry is the first in the world […] Should the day come when the importation of 'Swiss Milk' is struck by a duty of some kind, there will be hard choices to make in all poor families, lest they endanger the lives of babies, hopes of the nation and guarants of its greatness, its preponderance and the preservation of the rank it holds in the world.[42]

Nestlé, to sum up, proudly bore the Swiss standards of sound business sense and social betterment. This edifice, however, started to crumble at the turn

of the century, when relationships between Nestlé and Swiss farmers took a turn for the worse.

The milk wars

In 1893, debates took place in Switzerland's main legislative chambers, the *Conseil national* and the *Conseil des Etats*, over the continuation of the drawbacks on sugar introduced some three years earlier. Whereas there had been little opposition to the measure during the debates of the late 1880s, their tone this time was markedly different. The measure still had its supporters, including the head of the Department of Agriculture, M. Deucher,[43] and representatives from states whose farmers supplied the Anglo-Swiss company in Cham, such as the canton of Aargau.[44] These individuals were concerned that the non-renewal of the drawback measure would result in a considerable decrease of condensed milk production in Switzerland.[45] The condensed milk industry's exports amounted to 15 million francs, and absorbed the milk from 265 villages, which made it highly profitable for farmers. At the same time, that industry was facing harsh competition from the United States. Some feared that suppressing drawbacks would leave Nestlé with no other choice than to open a factory in England. 'We will have thus happily killed the hen that laid the golden eggs', the *Journal de Genève* warned.[46]

However, the drawbacks also had new opponents. One left-leaning independent estimated that farmers had not drawn any noticeable advantage from the measure.[47] The drawbacks, he argued, were 'a gift of 180,000 fr. per year given to this wretched Nestlé family and a similar present to the miserable stock-holders of the Cham factory'.[48] The milk condensing industry was prosperous, and was exerting an upward pressure on milk prices at the expense of the poor. The taxpayer's generosity was therefore unjustified, especially as such measures were creating a precedent which would embolden other industries to make similar demands. The renewal of drawbacks was approved by the *Conseil national* in June, but was rejected by the *Conseil des Etats* in December 1893.

This episode widened an emerging rift in Swiss public opinion regarding the dairy manufacturing industry. In the next years, the liberal *Gazette de Lausanne* lamented that whereas the drawbacks had 'enormously developed the export of condensed milk', their interruption had meant that 'these exports have become stationary, with a decreasing trend'.[49] The newspaper argued that the savings made by the non-renewal of the drawbacks were, in fact, at the expense of Swiss agriculture. It laid the blame at the door of agrarian protectionists, who it accused of dogmatically opposing any

merger between the interests of farmers and those 'of a shareholder company'.[50] Agrarians, the *Gazette* concluded, insisted on stoking division, even if that meant cutting their nose to spite their face.

But many disagreed, especially when it came to the argument that the non-renewal of the drawbacks would lead to mass 'denationalisations'. In 1893, one member of the Swiss parliament dismissed the industry's threats to move abroad as toothless blackmail: 'it is true that condensed milk manufacturers threaten to close their factories in Switzerland if we do not grant them what they ask for, but this is a vain threat. Furthermore, the export of condensed milk has constantly progressed despite the suppression of drawbacks'.[51] As Swiss trade statistics show, this latter prediction turned out to be mostly true, at least in the following decade (see Figure 1.1).

Nestlé itself denied that it was planning to move production abroad. In 1897, for example, it promptly denied a rumour that it was planning to 'emigrate'[52] to England:

> By no means are we considering transporting abroad the great installations that the Nestlé company owns in Vevey, Bercher, and Payerne. For industrial motives, this Company is only studying the question of creating a new branch in England or Ireland, in the same way that it has already created some in Austria and the United States.[53]

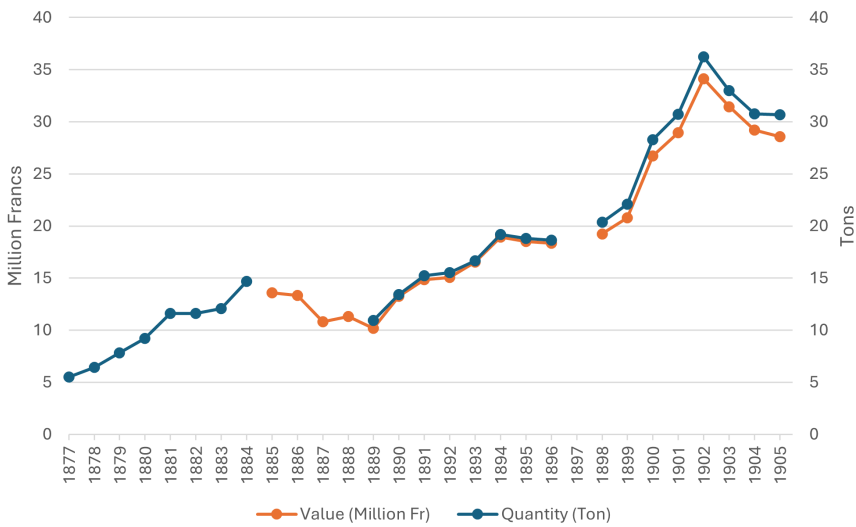

Figure 1.1 Swiss condensed milk exports, 1877–1905. *Note:* See Annex 5.

Perceptions of Nestlé's role in agriculture were starting to change, whether in Switzerland's press or in its political circles. The prophecy of Nestlé's looming 'denationalisation' did not fulfil itself until well after the First World War. But the simmering tensions of the 1890s transformed into open conflict at the turn of the century.

In the last few years of the nineteenth century, the regional federations of milk producers started voicing frustrations with their position in the dairy sector, which they warned was unsustainable. The purchase price of industry-grade milk had historically been determined by the market price of cheese, which was itself indexed on international prices.[54] But these prices were based on estimates produced by cheese exporters. One of the objectives of the *Union suisse des paysans* (USP), founded in 1897, was to arm farmers with independent information on prices, by gathering production and trade data.[55] Federations of milk producers soon went further by claiming that international cheese prices were by no means a valid yardstick for the determination of Swiss milk prices. Under this system, they argued, their income had stagnated over the years, whereas other players of the milk sector, especially in the exporting industries, such as cheese and condensed milk, had reaped growing profits. Producers bore the entirety of the risks associated with the international fluctuations of the milk market, but received none of its benefits. Around the turn of the century, the determination of milk prices became the mother of all battles for milk producers.

Their attempts were met with stark opposition from other players of the milk market. Opponents argued that the demands of milk producers were not only unjustified, but also self-harming and immoral. Increasing milk prices would simply make Swiss milk less competitive than imported milk, which would flood the Swiss market. Furthermore, milk producers had a 'duty' to keep the milk prices at their current level, since it was an 'essential food, indispensable for children'.[56]

Switzerland, it should be noted, was not the only country to experience such tensions.[57] The outcome of these conflicts tended to depend on the relative strength of agrarian, industrial, and urban constituencies in different political contexts; and on the level of government intervention. Where urban–industrial interests were strong, like in some parts of the United States, they tended to be more successful in cracking down on any upward price pressure.

In Switzerland, by contrast, the political atmosphere tended to favour farmers. The dominance enjoyed by the Radicals, the dominant centre-right force in Swiss politics since the introduction of the Federal Constitution of the Swiss Confederation in 1848, was starting to fade. Meanwhile, agrarians were gaining a foothold in canton-level and federal legislatures. The rise of populist agrarian parties was, in fact, momentous across Europe.[58]

Meanwhile, the unity of milk producers reached its apex with the creation of a national federation of milk producers, the *Union centrale des producteurs de lait suisses* (UCPL) in 1907.[59] This was partly in response to the rise of similarly united fronts amongst other constituencies of the dairy economy. Cheese exporters created the *Société Suisse des marchands de fromages* (SEF) in 1896;[60] milk retailers the *Schweizerischer Milchhändler-Verband* (SMHV) in 1906;[61] consumer cooperatives, which tended to be influenced by socialists, the *Union Suisse des cooperatives de consommation* (USC).[62]

But Nestlé itself also played a significant role in the organisation of the milk producer movement. One motive for the federalisation of milk producers on the national level was presented in the *Gazette de Lausanne*'s agricultural column in 1903. A dispute erupted between milk federations and Nestlé when it transpired that the firms' factories in Bercher, Payerne, and Neuenegg had paid dairy farmers different prices in different regions, ranging from 13.2 to 16 cents per litre. The agricultural unions of Vaud and Fribourg demanded an explanation for this gap, and insisted that in the future Nestlé should pay all farmers the same price for their milk.[63]

When it refused to comply with farmers' request, and instead declared that it would 'make no commitment whatsoever' and 'continue its purchases as before', Nestlé was, for the first time, putting itself publicly at odds with dairy farmers.[64] This response caused farming representatives to call for the unionisation of of milk producers on a federal, and not just a local, scale.[65] In cantons where farmer unions were more combative, they believed, they obtained higher prices for their milk, as was the case in 1911, when Nestlé paid '16.5 cents. the milk for its Bercher and Payerne factories', but accepted 'higher prices for those of Vevey, Neuenegg, and Cham, where producers have a more militant attitude'.[66] Joining forces through a great national federation was therefore necessary to ensure that farmers were no longer 'at the mercy' of milk-condensing factories.[67] The objective was that 'the conditions of the sale of milk be, for once, posed by the producer who, on several occasions, has had to sell his milk below production cost, while the establishment that manufactures it was distributing enormous dividends to its shareholders'.[68] The rhetorics of fairness and unity became ubiquitous in the public discourse of the newly created UCPL. The UCPL statutes defined the organisation's objective as securing milk prices that covered the production cost of the product, and that corresponded to its nutritive value.[69] Another recurrent theme in the UCPL's discourse was to portray farmers as victims of Nestlé's abusive pricing policies.

The federalisation of milk producers ushered in a series of conflicts which the contemporary press referred to as 'milk wars'. In 1908, a price dispute pitted producer federations, backed by the USP, against an alliance of industry buyers and milk retailers in Eastern Switzerland. After weeks

of gridlock, a compromise was eventually reached. Though not a great financial success for producers, this first milk war satisfied them that acting together could increase their negotiating power. A second 'milk war' took place in 1911, when cheese producers refused a bid by the SEF, the national federation of cheese exporters, on the grounds that the price offered was below par. Confident they could secure higher returns on their milk by starting an export company themselves, dairy producers created the Swiss cheese export company, Emmental SA.[70] A major lesson from this second milk war was that producers could emancipate themselves from ruthless middle-men by developing new forms of collaboration, and by investing in their own equipment.

The third milk war opposed the Zug-Aargau-Luzern federation of milk producers and the UCPL, on the one hand, to the Nestlé and Anglo-Swiss company and the consumer society of Basel, the Allgemeiner ConsumVerein (ACV), on the other. Nestlé had traditionally negotiated the price of its milk supplies in the region with the federation of producers of the state of Zug.[71] In 1911, the firm withdrew from this arrangement when its Cham factory started sourcing its milk from suppliers who were not members of the federation. But conflict broke out in earnest in May 1913, when Nestlé and Anglo-Swiss and the ACV conspired to offer a very low price on the milk produced by the members of the Zug-Aargau-Luzern farmer federation. Furious, the federation retaliated by announcing a milk embargo on both the firm and the ACV. Georges H. Page, a director of Nestlé and Anglo-Swiss, promised that Nestlé would supply milk to the Basel cooperative, should shortages arise in the city as a result of this embargo. But the farmers' stunt was partially successful. After negotiations brokered by the Zug authorities failed in the summer, the ACV and milk producers eventually reached an agreement in October, at the price of 18.5 cent per kilogramme of milk. Nestlé, on the other hand, did not budge. The firm managed to source enough milk through transfers from its other factories in Switzerland and from 'renegade' suppliers, and announced in the autumn that its purchases for the year were completed.[72]

One important outcome of this dispute was to bring before public opinion discussions that had remained largely confined to the private sphere of the dairy sector. As press reports suggested, Nestlé's milk war put to the test the respective public relations strategies of its two main opponents: 'the two adversaries…are flooding the press with releases in which they accuse each other of the worst misdeeds'.[73] It also recast the struggle between different actors of the milk sector as political, rather than arcane and technical.

The details of the dispute are worth detailing further. On the one hand, producers of the Zug-Aargau-Luzern federation, who soon got the support of the UCPL, argued that the offer made in May 1913 by Nestlé and

Anglo-Swiss (17.5 cent per kg of milk) was unacceptable because it was below the estimated production cost of milk (19.5 cent per kg), and below the average price which had been paid by other buyers in Switzerland's main agricultural regions. Secondly, whereas producers had made concessions, Nestlé had, from the outset, refused to negotiate. Thirdly, Nestlé's attempt to divide and rule, by offering a higher price to farmers who were not members of the federation, was ignominious. Many farmers had refused to be part of this ploy.[74] Fourthly, the low offer made by Nestlé and Anglo-Swiss was morally indefensible both because the company was wealthy, and because it had a public responsibility towards its suppliers:

> The financial situation of the Cham condensing factory is so that such a decrease in price is by no means necessary. Since it has merged, the march of its business is one of the best and it distributes dividents of 20%. Moreover, a factory that has engaged the estates of an entire country to turn to the production of milk exclusively assumes, from the viewpoint of public economy, a certain responsibility.[75]

Farmers, the UCPL concluded, were left with little choice but to respond by suspending their deliveries to the company. Other outlets, including cheese production, had proved more remunerative elsewhere in Switzerland. By distancing themselves from the condensing firm, spokespersons for farmers argued, 'our agricultural exploitations will free themselves from a dangerously unilateral cultivation system'.[76]

Nestlé's version, unsurprisingly, starkly contrasted with the UCPL's. First, the price offered by Nestlé was, the company argued, entirely fair: it was even 1.4 cent per kg higher than the price offered on the consumer market. The price of milk was determined objectively and independently from Nestlé, since the company consumed only a tiny fraction of Swiss milk production. Secondly, milk producers were being unreasonable: they had reaped 70 million francs in profits in previous years, at the expense of consumers and the industry, thanks to high milk prices caused by droughts and fodder shortages. It was only natural that they should now accept the inevitable return to lower prices. However, and thirdly, farmers were not really to blame for their reluctance to accept this lower price: those responsible were farmer federations. Their leaders had misled farmers by making them believe that the high prices they had enjoyed previously could be sustained indefinitely, and were the results of their strength in numbers. In fact, these high prices were only due to global supply and demand variations. Unions had in fact encouraged speculative inflation on land and cattle, putting farmers in the difficult situation they were in now.[77] Fourthly, unions had tried to prevent

individual farms from retaining their independence, by bullying them into joining the federations and by demanding that Nestlé only signed contracts with registered members. Nestlé had energetically refused this 'exclusion of an entire category of former suppliers whose only crime was to want to sell their products as they wished'.[78] To conclude, it was the federations, not Nestlé, who would bear the responsibility of the ruin of Swiss agriculture if they persisted.[79]

The conflict triggered profound changes in Nestlé's discourse vis-à-vis Swiss agriculture. Since the early 1910s, the efforts of milk producers to increase milk prices had already made them increasingly unpopular with the public, in particular in urban areas. Nestlé's depiction of producer federations as thuggish mafias was likely never intended to change the minds of farmers, but rather to harness support for the firm in public opinion. This manoeuvre, however, failed to convince some observers. The firm's towering profits did not help. The socialist press, which traditionally had little sympathy for farmers, sympathised with them in this particular case, and hoped it would jolt them into rebelling against their capitalist oppressors:

> The company has paid since the merger…38,000,000 fr. of dividends […]. In front of such scandalous facts, one wonders how it is possible that the idea of uprising has not progressed more in the class of the producers of such immense wealth.[80]

Nestlé's milk war also heralded a change in the way Nestlé presented its responsibilities to the home country. For farmers, Nestlé's comfortable profits meant that the company should contribute to sustaining high incomes for agriculture, instead of depreciating them. The company disagreed. Whereas it had once been happy to describe itself as a driving force in Swiss agriculture, and to demand and obtain tax rebates for that reason, Nestlé now minimised its role in this sector. It insisted, for instance, that it only consumed 5 per cent of Switzerland's total milk production.[81] And while it still accepted that it had a public responsibility towards the country's economy, it now defined this responsibility very differently. Agrarian leaders, it argued, were trying to eschew the implacable rules of free trade, thereby recklessly misleading Swiss producers and consumers. Nestlé's 'duty' was pedagogical: to instill a free-trade mentality into Switzerland's atavistic farming communities; or in the firm's own words, to:

> look further than the current situation by demonstrating to the agrarians that a country can not and will not prosper until it is in a position to produce as cheaply as its neighbour.[82]

Striking amidst these spats was the silence of the Swiss federal government. The outbreak of the First World War in July 1914 exposed the limits of this *laissez-faire* attitude.

The First World War

Despite its neutrality in the First World War, Switzerland was by no means shielded from its repercussions. From a political standpoint, the country became notoriously split between its pro-Entente French-speaking region and its pro-Alliance German-speaking region, along a metaphorical 'Rösti curtain'. It teetered more than once on the edge of civil unrest.[83] From an economic viewpoint, as a small land-locked country, Switzerland was heavily reliant on foreign trade. This was particularly obvious in the field of food. In the run-up to the First World War, the country imported 78 to 85 per cent of its cereals, a very high proportion by contemporary European standards.[84] Yet when conflict broke out, Swiss authorities were confident that it would be short-lived, and deemed the introduction of emergency measures unnecessary. At the start of the winter of 1916, however, food scarcity was looming large.[85] Like everywhere else in Europe, State intervention in food security was becoming unavoidable.[86] The Department of Public Economy, headed by Edmund Schulthess,[87] played a key role in this domain.

Milk shortages were of particular concern. 'In World War One', Frank Trentmann explains, 'milk was the harbinger of a new food politics to come, where regular supply and universal human needs defined and standardised by nutritional science took centre stage'.[88] The Swiss government had previously kept the disputes between milk producers and milk buyers at arm's length. It was now forced to acknowledge the need to ensure sufficient, affordable milk for the population. Considering the influence that the milk farmer federations wielded with their members, Swiss authorities had little choice but to turn to the UCPL. The organisation agreed to cooperate, and soon was in charge of marshalling the cooperation of milk producers in the wartime economic effort.[89] Whereas it had previously been the advocate of producers, the UCPL was now in charge of arbitrating between them and the needs of the general population. In return for its cooperation, the organisation now had unprecedented access to decision-making circles in the Swiss government.

These changes had a heavy impact on the organisation of the food sector. The UCPL, alongside other national federations of producers, cheese traders, and consumers, effectively turned into implementing agencies of the federal administration. In 1917, the Swiss government created administrations

dedicated to the supervision of bread and milk. These agencies were folded in 1918 into the Federal Office of Food, which oversaw the rationing of bread, cheese, butter, and milk. This system remained in place until 1920.[90] Switzerland's hands-off approach to food security now seemed but a distant memory, as were the disputes between producers, consumers, and the dairy manufacturing industry.

The Nestlé and Anglo-Swiss Milk Company, too, was mobilised in the war effort. From 1916, at the government's request, it started taking part in the supply of milk to Swiss cities.[91] On one single day in October 1916, Nestlé's factories received about 230 tonnes of milk, half of which they redistributed to major Swiss cities: thirty-one to Zurich, twenty-six to Bern, eighteen to Geneva, and ten to Lausanne.[92] The press reported that the company was supporting the Department of Public Economy in its 'commendable effort to maintain the price of fresh milk in Switzerland at favourable conditions for the consumer'.[93] Meanwhile, the reduction in the milk supplies available to the firm forced it to slow down production. In late 1916, Nestlé interrupted manufacture at its factories in the towns of Guin and Yverdon, though the company pledged to continue to pay its employees.[94] Production halted again in 1918, this time in the whole country, because Nestlé 'decided to put the entirety of its milk supply at the disposal of the newly created Federal Office of Food'.[95]

In return for its contribution, the firm obtained the authorisation to continue to export part of its production, even as milk shortages threatened the domestic market. The same principle applied to Swiss cheese-makers. According to the Swiss government, this was not so much a concession to Nestlé as a necessity for the Swiss economy. Reliant as it was on imports of raw materials such as coal and metal for its industry, the country had no alternative to trading its cheese and condensed milk for these vital commodities.[96] By supplying Swiss cities, while at the same time exporting products that could be swapped for sorely needed raw materials, Nestlé arguably contributed to Switzerland's wartime effort twice. This was only one side of the story, however.

As historians have noted, wars have always been highly profitable periods for the modern dairy industry. As a food that could be easily stored and transported, condensed milk became a helpful replacement for fresh milk during modern conflicts. In the United States, the army became an avid consumer of condensed milk during the Civil War and First World War. Firms such as Borden and the New York Condensed Milk Company directly benefitted from these increased wartime demands.[97] Nestlé found itself in a similar situation. In 1899, the company was busy processing 'large orders' from the English expeditionary corps in South Africa.[98] In 1903 by contrast, as a result of the conclusion of the Transvaal conflict, it announced that

it would stop expanding its productive capacity in Bercher and Payerne.[99] But the First World War brought the firm's production and profits to new heights. On the one hand, the conflict accelerated its industrial expansion overseas: Nestlé built and purchased dozens of new factories, especially in countries less affected by the conflict, including Norway, Sweden, and the United States.[100] On a global scale, Nestlé's productive capacity doubled between 1914 and 1918.[101] Despite increased raw material and transport costs, the firm's profits increased at the same pace, rising from 14 million francs in 1914 to 30 million in 1918.[102]

This was not to everyone's liking. The continued right to export granted to the milk condensing industry came under harsh criticism in the wake of milk shortages in 1916. Calls to prohibit the export of dairy products became increasingly vehement in the following two years. By continuing to authorise dairy exports, critics argued, the Federal Council was compounding the milk shortage, encouraging speculation, and expecting consumers to pick up the bill.[103] Even more shocking to these critics were the 'delinquent' gains made by Nestlé at the expense of consumers: 17 million francs in 1916.[104] 'Is it not simply in order to generate such scandalous profits', asked the Socialist journalist and politician Charles Naine[105] in *La Sentinelle*, 'that exports have been authorised at the expense of our supply, and this all the more easily as a result of the shares of this company being in the hands of some of our great bourgeois politicians or their families'.[106] Other commentators, such as Firmin Ody,[107] a Catholic politician from Geneva, deplored that consumers did not benefit from the 'formidable profits' enabled by 'excesses of exportation'. 'It is them', he argued, not consumers, who should 'pay the price premium demanded for milk'.[108]

The Department of Public Economy firmly denied being partial to the industry. Milk shortages, it argued, were not due to exports but rather to other causes such as fodder shortages and the rising consumption of milk.[109] Forcing factories to relinquish more milk for the supply of cities, at the expense of their exports, would have negative consequences for the country. Manufacturers had already had to stop production in order to supply cities; asking them for more effort would 'put 1600 workers out of work on the eve of winter'.[110] Furthermore, restricting dairy exports would endanger the country's coal supply.[111] In other words, Nestlé's financial success was a necessary correlate of its service to the country.

Nestlé itself did not remain silent on the matter. In a communiqué released in April 1918, alongside the publication of its 1917 financial report, the firm insisted that the bulk of its profits was generated not in Switzerland, but first and foremost abroad. Switzerland, it argued, only produced 7 per cent of the fresh milk it processed globally.[112] The notion that Nestlé profiteered from Switzerland's wartime plight was therefore untrue. At the same time,

the firm emphasised its participation in the war effort. It had, as it put it, 'contributed to the supply of 52 Swiss localities and delivered to that effect over 40 million litres of fresh milk, below cost price'.[113]

Just how deeply the war had altered the balance of power between Switzerland's government, its farmers, industry, and consumers became obvious in the closing months of 1918. A general strike broke out in November, spurred by inflation and wartime shortages that many blamed on government decisions, or lack thereof. The movement was violently crushed by the army and rural militiae, something that unions denounced as a new unholy alliance of political, industrial, and agricultural elites against the working class.[114] Meanwhile, the official stature granted to the UCPL during the war was here to stay. In 1922, the wartime Federal Office for Milk was dismantled. Many of its regulatory powers, such as the oversight of milk production and the stabilisation of prices, were passed on to the UCPL, which effectively became an 'organ of execution of the federal administration'.[115]

Nestlé's discourse vis-à-vis its role in Switzerland, by contrast, remained largely unchanged. The firm's claim that its international activities benefitted the country as a whole was particularly tenacious. True, the details had changed more than once. In the 1880s, the company argued that these international activities had opened new markets for Swiss milk abroad. In the 1900s, the same international activities now allegedly guaranteed fair prices for Swiss consumers, and incentivised Swiss agriculture to modernise. During the war, they were credited for safeguarding Switzerland's trade balance. Nestlé's business abroad, to summarise, was a net advantage for Switzerland whichever way you looked at it. But this tenet was put to the test when the firm became engulfed in a financial crisis in the early 1920s.

Grave consequences

The company's industrial expansion during the war had come at the cost of numerous loans, which by 1918 added up to 70 million francs.[116] The end of the war spelt the end of government contracts, which had propped Nestlé's activity since 1914. Without an outlet, stocks of unsold products started accumulating. Yet in the late 1910s, Nestlé's board of directors remained confident that demand for the company's products would continue to rise. It decided to further expand the firm's productive capacity, issuing new debentures and contracting new loans.[117] Yet public confidence in the firm's financial health started waning in early 1920, leading to a stark decline of the value of Nestlé shares over the following two years (Table 1.2).

By early 1922, Nestlé was in the throes of an unprecedented crisis. That year, for the first time in its history, it announced that it had suffered losses

Table 1.2 Nestlé's share price (CHF), 1920–21

1 January 1920	*1020.-*
1 July 1920	922.50
1 January 1921	690.-
1 July 1921	655.-
1 November 1921	556.-
15 November 1921	490.-
28 November 1921	280.-

Source: Gazette de Lausanne, 29 November 1921

during the previous exercise; they reached 94 million francs for 1921.[118] Dividends were not paid again until 1925.[119] Many shareholders perceived this debacle as a blatant case of mismanagement.[120] Official company communiqués blamed it instead on unfortunate international circumstances, including adverse currency exchange rates, the rise of raw commodity prices, a contraction of global demand, remorseless speculators, and an 'outbreak of collective hysteria on the stock market'.[121,122]

In late 1921, Nestlé announced that it had decided to scale down production in Switzerland. Its Bercher and Neuenegg factories were to close down, to the misfortune of its employees.[123] The manufacture of condensed milk would continue only in Cham and Payerne. In early 1922, the firm further announced that it would not renew its contracts with sixty milk cooperatives in Vaud, nor with seventy-four cooperatives in Fribourg or with the farmers of Frejam in the state of Aargau.[124] These setbacks occurred in an already-bleak context for Swiss agriculture. Since the early 1920s, producers were facing plummeting milk prices; a result of demand stabilising after the immediate post-war period and of production remaining high, which led surpluses to accumulate. Nestlé's departure would compound the difficulties that the dairy sector already faced. As the *Gazette de Lausanne* put it,

> As a regular and guaranteed buyer of large quantities of milk, the Nestlé company used to stabilise the price of dairy products. As such, it was one of the main agents of our farming economy. If this fulcrum were to be taken away from our farmers, this could have grave consequences.[125]

Few doubted that the closures were due to Nestlé's financial crisis.[126] The firm half-heartedly denied this. It argued that it had 'done the impossible to keep its personnel in employment' despite having had to 'relinquish, after 1916, 65 to 90% of its fresh milk to the supply of cities', but was now faced with no choice but to further curtail its activity.[127] Rehashing its pre-war credo, the liberal press backed this story, blaming Switzerland's high milk prices. It was down to producers, it argued, to fix this situation by learning

to play by the rules of the international market.[128] To achieve this, Swiss agriculture needed to modernise even more; tariffs needed to be lifted.[129]

Unlike in the 1900s however, these arguments had little traction in Swiss politics. On the contrary, Swiss authorities were keen to prevent a return of the milk wars. The First World War had made State intervention in the economy more palatable to the taxpayer. To the question, asked by the *Journal de Genève*, 'What were we to do of this mass of 23 millions litres of unused milk? Canalise to the cities this impressive milky river?', authorities in Vaud, Fribourg, and Geneva had an answer: financially back farmers in order to help them move on, for instance by starting a new cheese and butter cooperative.[130]

The topic of Nestlé's manufacture in Switzerland slipped out of public debates as the 1920s unfolded. The closure of Nestlé's factories in Cham in 1933 and Payerne in 1934 was barely covered by the Swiss press. The more inconvenient aspects of Nestlé's Swiss agricultural past were quickly erased from its own corporate memory. In 1940, an internal report reaffirmed that 'at no point in its existence did Nestlé constitute a predominant factor in the Swiss dairy economy, as it is erroneously believed in some quarters'. Glossing over the fact that Nestlé had once benefitted precisely from being considered as the engine of Switzerland's dairy economy, the report went on to say that even during the 'belle époque' of the Swiss condensing industry the firm had only ever absorbed around 8.8 per cent of Swiss condensed milk production. Nestlé had in fact behaved particularly selflessly. A 'purely financial' company would have stopped manufacturing in Switzerland much earlier than Nestlé had.[131] And so the story of Nestlé's involvement in Swiss agriculture faded out from the country's collective consciousness. Yet the legacies of the company's early experiments in the politics of agriculture and food in Switzerland live on.

Conclusions

Nestlé's role in Switzerland's farming and food economy was a hotly debated question in Switzerland from the 1880s to the 1920s. How this role was painted by the firm, its supporters, and its critics evolved rapidly during this period. In the 1880s and 1890s the company was celebrated as a champion of Swiss agriculture. In the 1900s and 1910s perceptions of the firm became more polarised. Nestlé posed as a defender of consumers and of the free market against unreasonable Swiss farmers. The latter, meanwhile, portrayed the firm as a ruthless, predatory overlord.

Two topics were particularly salient in these debates. First, they raised thorny questions regarding Nestlé's responsibility to Switzerland and its

people. Who could legitimately define this responsibility: the firm, the international market, the State? To whom was the firm responsible, and in what order of importance: its suppliers, customers, shareholders, employees, or Swiss taxpayers? What was the extent of this responsibility, and in what domains: agricultural development, food security, economic prosperity, collective welfare? Far from being an isolated Swiss phenomenon, similar debates were taking place across the industrial world during the same period. In the 1920s, they prompted capitalist magnates such as Andrew Carnegie to moot the idea of the 'trusteeship of wealth', in other words, the responsibility of financially powerful enterprises on behalf of the wider public. These ideas laid the ground for the theorisation of the 'social responsibility of businessmen' in the 1950s.[132] But the theorisation of corporate social responsibility (CSR) failed to settle these debates, many of which have continued to rage ever since.[133]

Secondly, the history of Nestlé's early links with agriculture interrogated the costs and benefits of the firm's insertion in the global market for different stakeholders in Swiss society. Again, the topic still elicits strong feelings in public opinion today. In 2018 the Swiss newspaper *Le Temps* accused Nestlé of being a 'traitor to the country'. More specifically, it took issue with Nestlé's decision to relocate its IT services and parts of its company Nespresso abroad, which threatened hundreds of Swiss jobs. Striking a patriotic note that echoed the discourse of Swiss farmers more than a century earlier, the newspaper argued that Nestlé owed 'a lot to its Swissness', because 'the reputation, sales and position of its products benefit from this image of excellence that the country possesses worldwide'. Nestlé's decision was even more 'shocking' and 'emotional' since the company, *Le Temps* argued, had 'always preserved its home region from its economic necessities'.[134] Yet as this chapter has shown, the fabled golden age arguably never really existed.

While it came to a slow and unspectacular demise in Switzerland in the 1930s, Nestlé's relationship with agriculture was far from over. According to a recent in-house history of Nestlé, this Swiss experiment served as a blueprint for its agricultural programmes in developing countries in the following decades.[135] The tensions that arose during this period of the firm's history were far from resolved, and were to flare up again in different parts of the globe. For now however, and in the wake of its financial crisis, the firm chose to regroup around a new cause: medicine and public health.

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2

To walk along with science

In 1957 the head of the Service of Scientific and Medical Documentation of Nestlé, Dr C.Z., reminisced, in an internal note, his relationships with the Swiss medical community over the past three decades:

> Through frequent contacts, sure friendships, it was…possible to obtain, always for free, publications from which we still extract the arguments, dosages, references that give our medical propaganda, in Switzerland and also abroad, its strength and its specificity […]. There was a time when we were lucky to have with us the Heads of all the Infant and University Clinics of the main Children's Hospital Services of this country.[1]

This era, C.Z. warned his employer, was coming to an end. The eminent professors and heads of clinics whose friendship the firm had nurtured were retiring. Competitors, such as the firm Guigoz, were deploying considerable efforts and funds to win over their successors.

C.Z.'s testimony illustrated a pivotal moment in the history of relationships between the food industry and medicine. No sooner had they been created in the nineteenth century than industrial food manufacturers started integrating the emerging language of scientific nutrition into their advertising. They sent samples of their products to famous doctors and scientists, inviting them to test them on their patients.[2] But this relationship with medicine was superficial, and did not build on solid clinical evidence. By the time Nestlé emerged from its financial turmoil in the 1920s, the science of nutrition was evolving rapidly. Nestlé needed more robust arguments to shore up its medical reputation. Over the next three decades, the firm revolutionised corporate participation in medical research and public health. Company executives viewed this new strategy as a cornerstone of its renaissance.

Nestlé's new medical strategy rested on two main pillars. First, the firm became an influential figure of health philanthropy, and acquired a central role in Swiss public health. Secondly, it struck partnerships with the most eminent Swiss paediatricians of the time. These doctors accepted to

test Nestlé's products in their own hospitals and to publish their results in scientific journals, lending renewed credibility to the firm's 'medical propaganda'. The Nestlé Nursery amalgamated these two aspects of the firm's medical strategy. Created in 1937, the institution served the double purpose of showcasing Nestlé's commitment to child health and welfare, and of providing Nestlé with its own research facility. Switzerland was turning into the firm's 'initial centre of experimentation'.[3]

The objectives that the company hoped to achieve through this strategy were manifold: to bring its research and development efforts up to speed with the latest medical knowledge; to improve the new products that it was planning to launch; to influence research agendas in infant nutrition; to boost the prescription of its products in hospitals and medical practices; and to defend its turf against competitors. These pursuits were not always unmitigated successes. The firm regularly had to foot unexpectedly high bills. Its networking and financial efforts sometimes yielded disappointing results. Blunders and gaffes occasionally jeopardised its alliances. Such obstacles, however, were by now familiar for company managers. The firm's relationship with Swiss agriculture in earlier decades, as the previous chapter showed, had frequently forced them to reassess and adapt their public discourse and tactical alliances in the political economy of food. The success of Nestlé's medical strategy in the inter-war period further confirmed the company's astute handling of conflicts and its maturing position in the Swiss politics of development.

The nutrition of young infants

In his 1872 *Mémoire sur la nutrition des enfants en bas âge* ('Essay on the nutrition of young infants'), Henri Nestlé warned that 'irrational food is one of the main causes of the high mortality of infants'.[4] Wet nurses, he argued, were untrustworthy. Fresh milk was often adulterated and carried dangerous germs. Nestlé's Milk Flour, by contrast, was safe. It fulfilled all the physiological needs of infants. Printed as a brochure, the *Mémoire* ended with a collection of testimonies from eminent professors who had tested and approved the Milk Flour. The piece was written in the academic tone of a scientific article, but its true purpose was to serve as 'disguised publicity'.[5] Nestlé and his sales representatives distributed the brochure to doctors and hospitals together with free Milk Flour samples. Their goal was to encourage the prescription of the product by doctors, hone its scientific reputation amongst the general public, and boost its sales.

Nestlé's *Mémoire* was very much a product of its time, one marked by suspicion towards the infectious perils of fresh milk and by the medicalisation

of infant feeding across the industrial world. In the second half of the nineteenth century, concern was growing amongst doctors and public health administrators; as breastfeeding became less and less popular, infant mortality was on the rise.

The medical profession generally disapproved of bottle-feeding, and believed – correctly, as is now widely recognised – that breastfeeding was the safest infant feeding method. But at the same time, doctors were also prompt to declare a mother's milk insufficient or of poor quality.[6] If done hygienically and under medical supervision, artificial feeding could therefore be an acceptable alternative. In France, under the impulse of doctors in the 1890s, dispensaries were established to educate mothers on safe bottle-feeding, and to distribute sterilised milk and baby bottles. The 'Drop of Milk', as these centres were called, soon cropped up in other European countries as well as in the colonial world.[7]

Against this backdrop, newly established infant food manufacturers vied for the backing of the medical world. In the United States firms such as Borden, Mellin's, and Horlick's advertised their products in medical journals.[8] Nestlé too publicised its medical credentials in the press (see Figure 2.1), and claimed that renowned doctors had tested and approved its Milk Flour.

Pharmacists were also a key target of the early marketing strategy of Henri Nestlé, who used to his advantage the deep changes affecting their profession. The role of apothecaries had once been to mix, prepare, and sell remedies to patients based on a doctor's prescription.[9] With the advent of the modern pharmaceutical industry in the nineteenth century, however, the tailored remedy was gradually supplanted by mass-produced medications.[10] Pharmacists and chemists retailed these new pharmaceutical specialties, putting many apothecaries out of business. By deciding to sell his Milk Flour exclusively in pharmacies, Nestlé hoped to put it on par with other modern panaceas.

Henri Nestlé's early medical strategy was a success, as the 'Nestlé' entry of a French medical dictionary testified:

> [Milk Flour] can, as Professor Lebert has very correctly written, 'very well supplement the insufficient quantity of maternal milk'. […] Experimented in turn by professors and physicians in special hospitals, maternities, children's hospices, asylums for abandonned children, in England, Switzerland, Germany, Russia, America, Nestlé's Milk Flour has given excellent results and is used daily. In artificial breastfeeding, it is preferable to the milk sold in large towns.[11]

But baby food brands also had their critics. In the 1880s, some leading American nutrition experts took issue with these products. Their main

Figure 2.1 Advert for Nestlé's Farine Lactée – the header section reads: 'Nestlé's Milk Flour has been recommended for more than 30 years by the leading medical authorities of all countries. It is the most widespread and the most appreciated food for children and the ailing' *Source: Journal de Genève*, 2 November 1898. Reproduced with permission from Nestlé Historical Archives.

objection was that their composition was a jealously guarded trade secret. Only a physician, these experts believed, could determine the unique nutritional needs of an infant who could not be breastfed, and could prescribe a tailored infant formula that should ideally be prepared by a hospital laboratory. Industrial formula could not, by definition, meet the specific nutritional needs of each infant. But it was not just the welfare of babies that was at stake. By commercialising ready-made products complete with instructions of use and by advertising them directly to the public, formula manufacturers were making doctors redundant, depriving them of an important source of income. Infant consultations typically represented a substantial proportion of a general practitioner's activity.[12] Such critiques were, in fact, nothing new. Doctors had long been ambivalent towards pharmacy in general. Since the early modern period, those who could not afford medical bills had often turned directly to apothecaries for quick-fix cures, much to the disapproval of physicians. The nascent pharmaceutical industry, by flooding the modern world with cheap drugs available directly over the counter in pharmacies, threatened to make life even harder for doctors.

Of course, the critics of commercial formula tended to disregard the fact that for the vast majority of the population, medical care, let alone medically tailored baby formula, was either unavailable or unaffordable. Far-removed from elite universities, American family physicians tended to prescribe commercial formula to mothers, trusting their largely positive if empirical experience. Satisfied clients often meant positive publicity and ultimately increased business for a general practice.[13] Baby formula therefore remained a safe option, or so it seemed.

More worrying was the rise of a mysterious illness affecting babies who were fed exclusively with condensed skimmed milk. Manufacturers had started marketing this product as a baby food in the 1880s, having spotted a gap in the market for cheaper alternatives to its full-fat equivalent and to powdered formulas.[14] In the 1900s and 1910s, public health authorities in several countries were alerted by the rise of a condition affecting the bones of children from poor backgrounds which correlated with the use of condensed skimmed milk as a baby food. They attempted to restrict the marketing of the product to culinary purposes only, with varying success due in part to pushback from the industry.[15] Years were to elapse before the disease rickets and its cause, a deficiency in vitamin D (a fat-soluble vitamin absent from skimmed milk), were to be fully understood.[16]

But more dramatic events were afoot as Europe's Belle Epoque came to its abrupt end. The First World War and the famines that plagued the continent in its aftermath threw the politics of food into turmoil. Science and medicine made strides. State involvement in public hygiene ramped up. Infant nutrition bore the marks of these changes. How food companies

adapted to this transforming landscape in the inter-war period has remained enigmatic – until now. Nestlé's corporate archives paint an edifying picture of the company's links with the medical world at this juncture of European history.

Philanthropic manifestations

Nestlé's financial troubles in the early 1920s brought about the nomination of Louis Dapples as chairman of the board in 1927. Dapples, a banker and financier, is chiefly remembered today as the architect of the firm's recovery. Company historians particularly credit his decisions to reduce share capital, close factories in Switzerland and elsewhere, and initiate managerial and organisational reforms.[17] A lesser-known aspect of his tenure, however, is that he also presided over a transformation of the firm's medical strategy.

In 1927 Nestlé announced that upon request from the head of the medical service of the Lausanne State Hospital, Professor Louis Michaud, it had accepted to fund the construction of a new wing of the hospital. Nestlé offered the Vaud government the sum of 1 million francs for this project, on the condition that the state match the donation – a condition that Vaud voters approved in 1929. The choice of Lausanne as the recipient of the firm's first large philanthropic donation toward public hygiene was not surprising. Founded in 1883 and affiliated to the Faculty of Medicine of Lausanne in 1890, the Lausanne State Hospital had been a pioneering institution in Switzerland. It epitomised the transition of Swiss hospitals from the charitable hospices and asylums for the poor that they had been until the Swiss Constitution of 1848, to modern publicly funded 'healing machines' equipped to face the rampant epidemic of diseases and injuries caused by urbanisation and industrialisation.[18] In spite of this reputation, conditions at the hospital left much to be desired. Its infrastructure and equipment were showing their age. Yearly admissions had grown from 4,996 in 1923 to 5,887 in 1928, saturating the hospital's bed capacity and leading to long waiting lists.[19] The needs were considerable indeed.

Local politics also mattered. As a Vevey-based company, Nestlé claimed to cherish its historic links with the canton of Vaud and to be guided by a 'spirit of solidarity' with its people.[20] But as often in Nestlé's burgeoning history, controversy was never far away. In 1927, Nestlé merged with the chocolate manufacturer Peter, Cailler, Kohler, Chocolats suisses S.A.[21] Nestlé's gift, some commentators observed, was possibly the result of 'an agreement with the canton of Vaud to avoid overly heavy fiscal consequences of the PCK merger'.[22] Or perhaps, as more cynical observers ventured, Nestlé's 'large, magnificent, royal gesture' was a way of drawing public attention away

from the closure of its factories in Switzerland, and from the fortune it had built on the 'dogged, poorly paid work of the peasant'.[23] Nestlé's donation had another group of opponents: the company's shareholders. In his typically authoritarian style, Dapples, along with the board of administrators, did not put the decision to allocate a million francs to the Lausanne hospital to a vote at the Nestlé general assembly. Nevermind disgruntled shareholders who were 'rather opposed to what they considered as an arbitrary use of *their money*', company executives seemed to believe.[24] The donation was 'proof of the firm's return to prosperity and the omen of a better remuneration of the stock-capital'.[25] The end justified the means.

Health philanthropy was admittedly not a new phenomenon. Switzerland's patrician families, which had dominated Swiss politics until the political upheavals that shook the country in the 1840s, had traditionally patroned charitable institutions for the poor and the sick, as had religious movements.[26] From the 1850s, newly minted industrial elites also took part in the business of benevolence. But some of them had ulterior motives. While they recognised the need to address the sanitary challenges brought about by urbanisation and industrialisation, the upper classes tended to abhor revolutionary proposals for State provision of social and healthcare protection. Like in other industrialising countries, they sponsored charitable health institutions as a way of deterring more radical reforms. This was particularly the case in Switzerland's more reform-minded cantons, such as Geneva, where conservative philanthropists vocally opposed the government's plans to expand the public hospital system.[27] In the canton of Vaud, by contrast, relationships between the government and its wealthy constituents were far less adversarial. The first privately funded modern health facility of its kind, the Nestlé Hospital was a poster child of public–private partnership in health.

The project went ahead. Nestlé could count on a staunch ally in the person of Professor Michaud, whom it appointed as its chief executor. The new hospital wing was inaugurated in 1935, and was baptised *Hôpital Nestlé* – the Nestlé Hospital.[28] The press was enthusiastic. The new building increased the Lausanne State Hospital's capacity by 156 beds.[29] In view of ever-expanding yearly admissions (6,533 in 1934, 7,306 in 1935), this was a much welcome addition.[30] Furthermore, as Michaud proudly declared to Swiss newspapers, the Nestlé Hospital could now be considered as 'one of the most modern clinics'.[31] Its infrastructure was state-of-the-art and contributed to the improvement of patients' wellbeing and comfort.[32] But as the publicity around the new building suggested, the target audience of Nestlé's grand project was not so much the Swiss public as the medical profession. Nestlé's loyalty, according to the firm, laid with science and hygiene.[33] The new hospital wing was equipped with the latest technologies for medical

research and medical training, which the old hospital had been cruelly lacking.[34] Dapples's inaugural speech therefore paid tribute to his firm's commitment to the advancement of medicine:

> The Nestlé company possesses in Vevey, which is its cradle, very complete laboratories. Selfishly inward-looking, it could have expanded them further, improved its equiment and tools […]. Out of interest for science, it has preferred putting at the disposal of the medical and academic corps of our canton a first-grade working instrument […]. It has insisted on affirming symbolically its intention to walk along with science, and to maintain with it good neighbourly relationships.[35]

With the Nestlé Hospital, Nestlé achieved something that few other Swiss companies did: associate its name, in the minds of the Swiss public and of the medical world, with the improvement of public health and with medical progress. The contrast with a similar initiative that took place around the same time, the Hospice Sandoz, could not have been more striking. In the 1920s the Basel-based pharmaceutical company Sandoz donated 500,000 francs to the Lausanne State Hospital for the construction of a new clinic. Unlike Nestlé, however, it did not make it a requirement for the Vaud canton to match its contribution. The new building, which opened in 1931, generated considerably less publicity and admiration.[36]

The Nestlé Hospital was to remain peerless in terms of the sheer financial scale of the firm's donation. But company administrators and executives were now sold on the idea of health philanthropy. Children's hospitals and clinics throughout Switzerland soon reaped the benefits of this newfound enthusiasm.

While children's hospitals mushroomed up and down the European continent during the nineteenth century, it was not until the 1870s that medical schools started teaching paediatrics as a fully fledged specialism. In Switzerland, the development of the discipline was more belated still; chairs of paediatrics were only created in the 1900s and 1910s.[37] Paediatrics was therefore still a relatively young medical discipline in 1930s Switzerland and, as Swiss observers noted, the country lagged behind its European neighbours in this area. The equipment of children's clinics in particular was becoming fast outdated due to a lack of funds and the 'constant progress of science'.[38] But this was without counting on Nestlé's managing director and Dapples protégé Edouard Muller, who made donations to paediatric clinics a key focus of the firm's health philanthropy. In the wake of the opening of the Nestlé Hospital in Lausanne, Nestlé started funding the refurbishment of numerous Swiss paediatric clinics, covering everything from the modernisation of infant dormitories to the purchase of machinery such as

x-ray scanners and bottle-filling machines.[39] 'Our prestige', Muller believed, 'can only be enhanced by these various philanthropic manifestations, which certainly endear us more and more with doctors, while at the same time we are without doubt making a very useful propaganda for the name Nestlé among the masses'. This programme, put simply, constituted an 'excellent publicity' for the firm.[40] Over the following years, it grew to encompass the whole of Switzerland (Table 2.1). The Second World War caused only minor delays to its implementation.

Table 2.1 Nestlé's donations to children's clinics, 1939–55

Institution (Canton)	*Year*	*Head of clinic/ service*	*Amount (fr.)*
Clinique infantile de Lausanne (Vaud)	1936	Prof. Jules Taillens	5,000
Hospice de l'Enfance, Lausanne (Vaud)	1930s		20,000
'Nouvelle section du Kinderspital' (Zurich)	1939	Prof. Guido Fanconi	20,000[1]
Unspecified institutions (Bern, Geneva, Neuchâtel)	1930s		Unspecified
Ospedale di san giovanni bellinzona (Ticino)	1940		10,000[2]
Infantile clinic (Basel)	1946; 1950	Prof. Freudenberg	6,000
Kinderspital (Bern)	1946–8	Prof. Glanzmann	10,500
Hospice de l'enfance, Lausanne (Vaud)	1947		5,000
Kant. Säuglingsheim (Bern)	1948–53	Prof. Tobler	10,000
Maternité de l'Hôpital de Genève (Geneva)	1950	Prof. Bamatter	6,500
Hôpital des Cadolles (Neuchâtel)	1951		10,000
Hôpital Pourtalès (Neuchâtel)	1951		10,000
Nido d'Infanzia, Lugano (Ticino)	1952		5,000
Ostschweizerisches Säuglingeheim (St-Gall)	1954		10,000
Kinderspital (Aarau)	1955	Prof. Baumann	3,000[3]

[1] C.Z. to J.C.C., 24 April 1956, AHN 11727.

[2] E.M. to A.P., 9 February 1940, AHN 459.

[3] C.Z., 'A l'attention de M. P.H.', 11 February 1957, AHN 11727.

Source: Unless referenced otherwise, figures are drawn from (probably) E.M. to A.P., 30 July 1947, AHN 11727.

But Nestlé executives soon realised that there were downsides to their 'generosity'.[41] There were two conditions for clinics to qualify for Nestlé's patronage: that they should be part of a university hospital, and that they should accept to rename one of their rooms *Salle Nestlé*.[42] The first criterion in particular was supposed to keep the firm's financial commitments within bounds. However, some of the firm's directors questioned whether these safeguards were sufficient:

> One day, we had to pay 20,000 francs to the Hospice of Childhood of Lausanne to have a Nestlé Room, then 20,000 francs to the children's section of Zurich, after which it was the turn of Bern, Geneva, then Neûchatel.[43]

To make matters worse, the medical corps tended to be remarkably ungrateful. At the Zurich Children's Clinic, a plate commemorating one of several Nestlé donations was affixed to a wall opposite an elevator, whereas it had been previously agreed that it should feature at the entrance of the building.[44] And while C.Z., the manager of the Service of Scientific and Medical Documentation of Nestlé, waxed lyrical about his ever-closer relationships with doctors in these clinics, his prodigality was not always to the taste of his superiors. As one Nestlé executive gossiped to another,

> Every time he goes on visits, he reports back with a load of good news, that he has seduced such and such scholar, only to then present us with a bill of 5, 10, or 20 thousand francs…If we were to add up all the amounts which we've taken out of our tills and which originated from our little friend C. I think we would be surprised by the overall amount.[45]

Health philanthropy nevertheless remained the stepping stone of Nestlé's new medical ambitions. It was also an important lubricant in another mechanism of its medical strategy: the recruitment of Swiss doctors willing to conduct clinical trials of its new products.

Scientific research

Despite Nestlé's financial difficulties, the 1920s were far from a fallow decade for its laboratories. In the United States 'humanised' milk, a type of infant formula that claimed to replicate the chemical structure of the lipids found in human milk, was having a moment. It was, manufacturers claimed, the most digestible infant food product ever to appear on the market. Nestlé developed its own humanised milk in 1921, Lactogen.[46] This was the first of a series of so-called 'dietetic' products to be launched by the firm in the following years. Eledon, a powdered buttermilk (or *babeurre* as its star ingredient was referred to in French), was introduced in 1929. It was marketed

as a therapeutic food for infants and young children with diarrhoea, and as a breastmilk substitute for infants who did not tolerate cow's milk. It was closely followed in 1930 by Nestogen, a powdered milk enriched in maltose-dextrine (a synthetic sugar molecule that supposedly imitated the natural sugars present in breast milk). Nestogen was a 'complete infant food to supplement or replace maternal milk'. Next came Pelargon, an acidified milk for dyspeptic, diarrheic, or eczema-prone babies launched in 1934.[47] Finally Nestrovit, a vitamin supplement for infants elaborated in collaboration with the Basel pharmaceutical company Hoffmann-La Roche, completed the range in 1936.[48]

In developing these products, Nestlé's laboratories were following the *zeitgeist*. Even though medical guidelines around the world continued to define breastfeeding as the best infant feeding method, change was brewing in infant nutrition in the inter-war period.

The pasteurisation of milk, first, was making headway across the Western world in the 1920s. For the milk industry, pasteurisation made transport and storage both easier and cheaper. For Western countries anxious with demographic decline in the wake of the bloodbath of the First World War, pasteurisation was a way of combatting child mortality by reducing milk-borne infections such as tuberculosis and typhoid fever. With pasteurisation, cow's milk was no longer inevitably the 'white poison' it had once been to infants and children.[49] For Nestlé, this development was both a threat and an opportunity. Nestlé's flagship products, condensed milk and Milk Flour, had once been viewed as safe alternatives to cow's milk. This selling point was now losing its appeal in Europe and North America, which were Nestlé's largest markets. But at the same time, pasteurised milk did not solve all problems in infant nutrition. Milk intolerance, dyspepsia, and vitamin deficiencies such as rickets were fast outranking milk-borne infections on the list of concerns of mothers and paediatricians. Nestlé's new dietetic products addressed precisely these ailments.

Secondly, while mothers were now spoilt for choice when it came to safe baby foods, their vessel, the baby bottle, was also being rehabilitated. The perceived success of the mass domestic hygiene campaigns run by health authorities over the previous decades, the improvement of housing and access to clean water, and the growing proportion of births taking place in modern hospitals under medical supervision, all meant that bottle-feeding had never looked safer.[50] At the same time, misguided medical interventions sometimes undermined would-be breastfeeding mothers. It was not uncommon for the staff of British maternities, for instance, to teach new mothers to breastfeed on a fixed schedule rather than on demand. While this practice was supposed to demonstrate the superiority of Western civilisation and its efficient time management, much in the same way as the train timetable

and the factory work-shift had since the Industrial Revolution, it is now believed to be detrimental to a woman's breast milk supply.[51] Maternities also encouraged mothers to rest after giving birth by caring for newborns in nurseries, where they were bottle-fed. All these measures could in fact hinder the proper initiation of lactation, and mistakenly cause the mother and medical staff to doubt her ability to breastfeed at all. The decision to bottle-feed partially or exclusively often followed, much to the advantage of formula manufacturers.[52]

Nestlé's laboratories were not the only part of the firm busying itself finding ways of addressing changing expectations in infant nutrition. As company insiders noted, gone were the days when Nestlé's research laboratory was a pioneer in nutritional research and when even doctors and scientists looked up to Nestlé for answers:

> Paediatricians no longer content themselves like they did before, in regard of children's food, with empirical findings and observations, but seek more and more to base their theories on exact investigations and the scientific research undertaken by laboratories.[53]

Nestlé did not have the capacity or expertise to conduct such research. From 1934 onward, the Service of Scientific and Medical Documentation of Nestlé, headed by C.Z., became the mastermind of an ambitious programme of clinical experiments; a role it played by liaising between Nestlé's laboratories, its manufacturing department, and medical partners in the outside world.[54]

Key to the success of this programme was the enrolment of paediatricians willing to test Nestlé's new products in their services. Fortunately for the company, many of the most eminent heads of paediatric clinics in Switzerland agreed to participate, including Professors Guido Fanconi of Zurich and Eduard Glanzmann of Bern, two internationally renowned paediatricians.[55] This was not a small feat. Many of them, such as Glanzmann, were known to be 'very reserved and very prudent especially toward the industry'.[56] Moreover, the testing of Nestlé's products was a lengthy and demanding process:

> Each experimentation requires attention and a lot of monitoring during months; they demand, all of them, practical work (clinical examinations, laboratory analyses, x-rays) and hours of writing.[57]

While the motivations of paediatricians for conducting clinical studies on behalf of Nestlé remain hard to ascertain, a number of them can been inferred from the reading of company sources. First, it is likely that doctors

sincerely believed in the therapeutic potential of the products, and wanted to help make them perfect for their patients. Younger clinicians could see these studies as a tremplin for their career; a way of associating their name with cutting-edge research and publications. Some of them could be flattered by the firm's attention. Then, of course, there could be the financial incentive. In theory, their work for Nestlé came free of charge. As C.Z. pointed out, this voluntary aspect meant that Nestlé's medical allies were less likely to be suspected of having a conflict of interest. 'They only accept to mention the products which they consider useful, without remuneration to keep their entire freedom and not be "bought"'.[58] The reality, however, was more nuanced. Many of the clinicians involved in Nestlé's studies benefitted directly or indirectly from Nestlé's philanthropy. Taillens's *Clinique infantile*, in Lausanne, or Fanconi's *Kinderspital* in Zurich, were just a few of them. C.Z. himself correlated Nestlé's philanthropy and its clinical study programme in no ambiguous terms in a summary he wrote in 1956:

> If one distributes, over a period of 25 years, the donations to the infantile clinics of Zurich, Basel, Bern, Lausanne and Geneva, the total represents in the end very little in view of the advantages we drew, *worldwide*, out of the publications that were released and the exploitation of the formulas that were elaborated with the Swiss paediatricians (Pelargon, Soldor, Arobon, Nestargel, Nesmida).[59]

Pelargon was one of the first Nestlé products to be subjected to in-depth clinical trials. Shortly before the product was released, in 1934, Nestlé asked several paediatricians to test it in their services. The methodology and research objectives of each study were left to the clinician's discretion.[60] Some of them sought to document the weight gain of infants fed with Pelargon, regardless of their condition. Others aimed to determine the product's most relevant therapeutic uses by observing its effects on infants with a range of digestive issues. Studies sometimes focused only a few patients, but often on a lot more. On one occasion, Professor Fanconi, of the *Kinderspital* of Zurich, conducted a trial by 'giving Pelargon to an entire room of his service', irrespective of the individuals' diseases. On another, Dr Tobler, of the Bern *Säuglingsheim*, conducted a time-consuming study on healthy patients.[61]

The absence of a clearly defined methodology in some of these studies was nothing shocking in the medical context of the 1930s. The gold standard of the randomised, double-blind, placebo control clinical trial was not to be established for another several decades by modern clinical pharmacology. Drug regulation was still largely informed by experiments conducted by chemists in laboratory, rather than by doctors in clinical

settings.[62] If anything, the Nestlé experiments were at the vanguard of nutritional research. They remained so as they were rolled out into the 1940s and 1950s.

The Pelargon experiments yielded largely positive results. In studies conducted simultaneously in at least ten Swiss hospitals, weight gain was almost always achieved in both healthy and sick infants.[63] Fanconi advised Nestlé to put Pelargon at the disposal of doctors as quickly as possible.[64] Like many of his colleagues around the country, he was full of praise, never mind occasional glitches. One of the studies at the Bern *Kinderspital* was suspended when Eduard Glanzmann reported that Pelargon had 'provoked in all children skin rashes, which fresh acidified milk made disappear immediately'. Just weeks earlier, Fanconi's own patients had suffered from violent diarrhoea. As the Service of Scientific and Medical Documentation discovered (but did not disclose to the paediatricians), the incriminated batch actually contained 'an addition of bacilli cultures, or a derivative, with reductive properties (Keretcz)' included for testing purposes.[65] Such mishaps occasionally caused the delay or even cancellation of some clinical studies.[66] But paediatricians were forgiving, and accepted to leave these outliers out of their reports.[67] C.Z. had succeeded in revamping the image of Nestlé's infant feeding product with leading Swiss paediatricians.

But Nestlé's clinical experiment programme had further goals. Some of the studies provided material for scientific publications in medical journals.[68] These publications were a godsend for Nestlé's 'medical propaganda':

> They represent for Nestlé the means of a propaganda of indeniable value, since nothing rivals the experience and opinion of the Masters to convince medical practitioners […]. Publications…are indispensable to justify our products and have them prescribed.[69]

The studies were also an important tool in the firm's research and development tool box. The Service of Documentation collected much-coveted figures, 'curves', and statistics. It used them to elaborate the instructions for use of Nestlé's products, thereby lending them scientific authority. Experimentation, as C.Z. put it, 'preceded, then followed, commercialisation, in order to allow the main hospitals and nurseries of Switzerland, and therefore their heads, to control *themselves* the "indications" of each formula made available to the Swiss medical corps and to verify their physiological, therapeutic, and practical "advantages"'.[70] These results were also re-printed in brochures distributed to hospitals and general practitioners.[71]

The clinical studies were also aimed at boosting Nestlé's sales in hospitals and to the general public, since consumers were 'strongly influenced by the medical corps when choosing their products'.[72] On at least one occasion,

Nestlé decided to expand the experimentation of a new product to a wide range of hospitals, long after it had obtained the data it needed. The goal of this expansion was 'not so much to gather new feedback, as to prepare centres of propaganda once sale is decided'.[73] Mothers were more likely to 'accept the products which they have seen used' in clinics.[74] The true impact of Nestlé's clinical experimentation programme on sales is impossible to ascertain. Wholesale dealers did report growing sales of Nestlé products to paediatricians who had been involved in their testing.[75] And then there was the fact that Nestlé now enjoyed a quasi-monopoly in infant clinics. In 1957, the paediatric services of Zurich, Bern and Geneva started a research partnership. Nestlé's Pelargon and Eledon were chosen as the staple of their baseline feeding programme.[76]

There was a final, less tangible outcome to Nestlé's clinical research programme. It helped maintain and expand a network of trusted doctors who helped consolidate the firm's status with future generations of doctors, and who could act as informants on the inner politics of Swiss medicine. Cultivating the friendship of paediatricians was a long game, and its effects could take decades to materialise, but the results were well worth the effort. In 1952, the Swiss Society of Paediatrics chose Nestlé's premises as its base for a very special event. Nestlé directors exulted: 'a Swiss pediatric congress in Nestlé's buildings, it is surely something, so if I tell you that it is in our home that the *Société Suisse de Pédiatrie* celebrated its fiftieth anniversary!'[77]

Remnants of the medical corps's past reservations toward infant food manufacturers nevertheless still lingered. The management of medical dissent turned into another learning opportunity for the firm's medical strategy. For some doctors in the early 1920s, Nestlé's advertising claim that its product was 'the best replacement to mother's milk' was still an irritant.[78] The firm initially snubbed those who called for the phrase to be withdrawn from its materials. Within a few years however, Nestlé's 'methods' had, by the firm's own admission, 'radically changed'.[79] As it publicly claimed, the company was now eager to cooperate with its medical critics. The same applied to public health authorities. In 1933, Nestlé set out to rally influential paediatrician and medical councilor of the Department of Health of Basel-Stadt canton, Professor Wieland, to its cause.[80] Since 1921, an official childcare brochure distributed by the canton to first-time mothers had warned them against the use of infant formula, which it described as 'harmful'.[81] Nestlé, its envoys argued to Wieland during their 1933 mission, had 'long changed its sales methods'. It now 'collaborated closely with doctors everywhere, and all [its] products were manufactured under the control of its scientific service and were submitted to prolonged clinical tests before being offered to the public'.[82] Wieland resisted at first, but ultimately conceded that the brochure's advice was now outdated.[83] It was, he believed, 'more valid some

twenty years ago, when Nestlé's propaganda was of a different nature from what it is today'.[84] He agreed to revise the text, which was still however to mention that formula was 'too costly'.[85] The firm's efforts had nevertheless paid off: doctors and public health administrators were now much more 'amenable'.

Nestlé's clinical trial programme remained virtually unchanged through the Second World War and its aftermath. The costs of health philanthropy aside, for two decades this programme did not cost the firm a thing. Yet old habits died hard, and in the 1950s C.Z.'s spending penchant resurfaced. Paediatrics, he informed his management, was becoming an ever more sophisticated discipline, and required costly laboratories, equipment, and staff. This meant that 'in order to keep up…heads of clinics now need to imitate the example of their colleagues from other branches of medicine… by calling upon private financial contributions, including from the food and pharmaceutical industries'.[86] Keeping leading paediatricians and their clinics on side was crucial on several counts. First, because they were 'centres for research, control, and influence'.[87] Secondly, as a defence against competitors. Nestlé's previously undisputed hegemony was under threat. 'If…we do not take this initiative, it is Guigoz that will overtake us', C.Z. warned.[88] Thirdly, because clinics were training the doctors of tomorrow. Nestlé's historic medical partners were aging. The firm needed to win their successors over. It is with these objectives in mind that Nestlé followed the example of the pharmaceutical industry and started remunerating its 'scientific advisers'. Hospital practitioners such as Alexander von Muralt, Prof. A. Fleisch, and Prof. Vannotti, received 10,000–12,000 francs per annum, plus bonuses in case of publications (6,000–12,000 francs per year for Muralt from 1953 to 1955).[89]

With this turn, a formative stage of Nestlé's collaboration with medicine drew to a close. And yet at the same time, another facet of the firm's interwar medical strategy, the Nestlé Nursery, was coming into its own.

The Nestlé Nursery

In 1921 a report by Nestlé's French branch mooted the idea of creating a Nestlé Nursery. Such an institution, the report argued, would 'show to THE WORLD, by saving children, the best method to replace maternal nursing whenever it is not possible'.[90] This method was the use of Nestlé's products. To populate its future nursery Nestlé could, the report went on, have 'as many rescued children' as it wanted, but the best option remained to 'have illegitimate children whose still-living mother could not breastfeed'.[91] This way, the firm could not be accused of snatching children from

their mother's breast. The project lay dormant for the next fifteen years. Yet it was very much with the same vision in mind, if not with the same by now slightly unpalatable language, that in 1936 Nestlé announced its intention to build a new nursery in Vevey. The *Pouponnière Nestlé* – 'Nestlé Nursery' – was Louis Dapples's pride, although he did not live to see its completion in October of the following year.[92] He died unexpectedly in the summer of 1937.

Like the Nestlé Hospital, the Nestlé Nursery was showcased by the company as a symbol of its 'attachment to its country'.[93] According to its executives, creating such an institution was also a natural step for the firm, for whom infant health and 'the protection of childhood' had been a mainstay since its creation.[94] Like the Hospital, the Nursery was also a striking example of a public–private partnership between the canton of Vaud and the firm. Nestlé disbursed 200,000 francs for the construction of the building, and created a foundation which it endowed with a capital of a quarter of a million francs to cover its running costs.[95] The company was also committed to covering any deficit in the Nursery's annual burdge, which grew constantly during its first years (Table 2.2). And although on the firm's insistence the Nursery became property of the canton upon its completion, Nestlé was effectively in charge of its operation for the next decades. The Nursery's board of trustees, a committee of four people, was appointed by the firm, as were its medical director and 'scientific council'.

Nurseries had cropped up in Switzerland in previous years. According to the first director of the Nestlé Nursery, Jules Taillens, mortality rates in children's hospitals had become 'normal' thanks to 'intelligently applied hygiene and prevention measures, appropriate and carefully set feeding', and 'a well-prepared and well-trained personnel'.[96] The same could be said of nurseries, which by and large followed the same principles.

Table 2.2 Nestlé Nursery budget, 1937–52

Year	*Spending*	*Income*	*Shortfall covered by Nestlé (Fr.)*
1937–38 (15 months)			54,027.59
1939	55,906.81	20,916.35	34,990.00
1940	63,088.15	23,303.55	39,783.60
1945	79,486.14	32,006.00	47,480.14
1946	90,313.54	33,930.85	56,382.69
1947			56,108.00
1950	128,210.18	59,453.28	68,756.90
1952	140,000.00		69,000.00

Source: See Annex 6

Against this backdrop, the stated mission of the Nestlé Nursery was to help destitute families who could not raise their baby at home, whether for medical or economic reasons, by offering these babies a safe haven in a state-of-the-art childcare institution complete with the latest medical equipment.[97] The Nursery was therefore an 'institution working in the public interest'.[98] In line with the widespread self-help discourse of the time however, a financial effort was expected from families. Unlike an orphanage, the Nursery was 'not a a charitable institution', but a 'private institution that hospitalises babies against the payment of an equitable finance'.[99] On average, the monthly fee effectively paid by families in 1939 amounted to 61.3 fr., in 1945 to 88.7 fr., and in 1946 to 104.1 fr. In 1939, this would have represented 16 per cent of the average employee's monthly income.[100] Discounts and waivers applied to those whose resources were too limited.

While the benefits of the Nursery for Vaud's poor families and infants were widely praised in the press, its advantages for Nestlé were also appreciable, if more confidential.

The company's executives envisioned the Nursery as 'exemplary': a real-life exhibition of Nestlé's expertise in child care and nutrition for the Swiss public and medical corps to admire.[101] As always Nestlé considered that medical personalities needed to vouch for the initiative, if only as 'a "cover" that should shelter us from the trouble that our quality of commercial firm will doubtless attract'.[102] The collaboration of paediatricians was forthcoming. Prof. Taillens, the former director of the Lausanne Infantile Clinic, accepted to become the first director of the Nursery. The firm further enlisted its old medical allies, Glanzmann, Feer, and Exchaquet, on the Nursery's scientific council, where they sat alongside C.Z. A head doctor, Dr Rivier, a manager, Exchaquet's own daughter, and a squad of nurses completed the team. As Muller declared in his inaugural speech, these names were 'the guarantee of the moral support which medicine, and in particular paediatrics, lend to this scientific and humanitarian enterprise'.[103]

Having successfully harnessed the influence of Taillens and his colleagues, Nestlé spared no expense in building the Nursery's medical credentials. The building followed the latest principles of modern hygiene. A sun gallery and glass panelling ensured that babies were exposed to fresh air and natural light (Figure 2.2).

But the Nursery's 'dietetic kitchen' was undoubtedly the highlight of the facility. It was 'the heart of the Nursery, for infant feeding plays more and more a primordial role in the hygiene of the small child'. Its equipment included 'a mixed electric and gaz furnace, a hot water steriliser – the largest in Switzerland – a bottle-cleaning machine, one to rinse them and a

Figure 2.2 Nestlé Nursery brochure: 'on the sun gallery'. *Source:* Taillens, La Pouponnière Nestlé, Fondation Louis Dapples, Nestlé, 1938, Archives historiques Nestlé, Vevey, file 'Pouponnière'.

heating cupboard to dry them' (Figures 2.3 and 2.4).[104] By displaying high-tech bottle-feeding equipment, the Nursery aimed to dispel any remaining medical hesitancies. As Taillens reassuringly put it,

> In times gone by, the infection by far the most dangerous, for the young bottle-fed infant, was digestive infection; we know for instance how frequent and serious acute newborn gastroenteritis was. Today, very fortunately, this danger has become small or even inexistant.[105]

As a showcase for Nestlé's medical expertise, the Nursery was a success. Nestlé often invited doctors and medical delegations travelling through the Vevey area to visit its factories. From 1937 onward, the Nursery became the apotheosis of their visits. Sightings of delegates from international medical congresses, of representatives of medical and child protection associations, and of journalists were far from uncommon at the Nursery.[106] In 1950, the World Health Organization chose the Nursery as the site of its practical demonstrations as part of the 'Social Paediatrics Dialogues'.[107] The same year 462 participants of the congress of the *Association Internationale de Pédiatrie*, which was held in Zurich, visited the Nursery.[108]

Last but not least, the avowed objective of the Nestlé Nursery was to 'contribute to the study of infant feeding'.[109] Part of this agenda was purely

Figure 2.3 Nestlé Nursery brochure: 'preparation of baby bottles'. *Source:* Taillens, La Pouponnière Nestlé, Fondation Louis Dapples, Nestlé, 1938, Archives historiques Nestlé, Vevey, file 'Pouponnière'.

Figure 2.4 Nestlé Nursery brochure: 'cleaning of baby bottles'. *Source:* Taillens, La Pouponnière Nestlé, Fondation Louis Dapples, Nestlé, 1938, Archives historiques Nestlé, Vevey, file 'Pouponnière'.

performative. Ever since Nestlé staffers had first floated the idea of a nursery, one of the institution's expected advantages had been that it would generate

> a broad medical publicity, thanks to the provision of irrefutable documents obtained in our Establishment. Doctors, whether friends or enemies, or simply opposed out of ignorance to the use of our products could pay interesting visits there and observe the results with their own eyes. Duly controled curves would also permit interesting observations.[110]

With the Nursery now a reality, the firm enjoyed a small infant clinic of its own, complete with medical personnel and equipment, laboratory facilities, and a constantly renewed pool of patients. The statutes of the Nursery authorised the head of Nestlé's Service of Documentation to design, execute, and monitor research projects on topics 'directly linked to the interests of Nestlé' under the control of the Nursery's head doctor, Rivier.[111] Part of this research agenda simply aimed to confirm the results obtained by Nestlé in other Swiss clinics. From the outset Nestlé pledged to supply the Nursery with 'all the elements' of the diet of the newborns. These ranged from sweetened condensed milk, which Nursery director Taillens tirelessly championed for its 'inappreciable qualities', to the 'special milks, buttermilk and acidified milk for instance, and flours'.[112] Administered from birth on healthy newborns, Pelargon achieved 'regular growth, normal stool, no trouble with digestion'.[113] Where buttermilk was indicated, Eledon also gave excellent results.[114]

But Nestlé had further ambitions than simply to replicate already-existing results. Some of the research projects were geared toward the development and testing of new dietetic specialties, including a dechlorinated buttermilk, olive oil and soy-based formulas, and a banana-derived sugar.[115] One such study concerned a thickener, Nestargel. Eight babies were fed meals with and then without the product. The speed of their gastrointestinal transit was measured, and their upper gastrointestinal tract was observed through contrast radiography. The latter revealed something unexpected. 'When you shake the child after a meal without Nestargel', Rivier reported, 'you can see the gastric liquid squirt like water in a bottle; however, if the meal contains Nestargel, the liquid sways like waves'.[116] This prompted further experiments aimed at studying the effect of digestive juices on the viscosity of Nestargel, both 'in vitro' and 'in vivo'. Another Nestlé product, the starch-based Soldor, was used as a point of comparison. Various preparations were fed to babies through a nasogastric probe, and subsequently 'removed from the stomach' to be analysed. With Nestargel, the probing was 'long and difficult'. Some of the babies, 'despite their best efforts, could not manage to vomit'.[117]

Though harrowing by twenty-first-century standards, these practices arguably did not appear as particularly barbaric at a time when infant surgery was still often performed without anaesthetics. Rivier presented his results at scientific exhibitions, including at the Congress of the International Pediatrics Association which took place in Zurich in 1950.[118] How frequently such experiments took place, how many Nursery boarders they affected, and whether their parents were informed are thornier ethical questions that the company's archives do not address.

The Nestlé Nursery was turned into a daycare institution in 1974, and was bequeathed to the city of Vevey in 1977, according to the city's website.[119] But except for a short film shot in 1962 and still available in the archives of the *Radio Télévision Suisse*, its legacy remains shrouded in mystery.[120] What the sources brought to light in this chapter show is that over its first twenty-five years of existence, the Nursery hosted over two thousand boarders and provided a total of two hundred and sixty thousand days of hospitalisation.[121] As a training facility, it accustomed hundreds of young nurses to ultra-modern bottle-feeding equipment and, crucially, to Nestlé's products. Between 1937 and 1962, it served to train three hundred and fifty nurses for an average duration of eight months.[122]

Conclusions

It was June 1952 and Dr Bamatter was full of praise for Nestlé when he addressed his colleagues at the reception of the annual congress and fiftieth anniversary of the Swiss Paediatrics Society.

> You have managed to evoke for us the necessity and the advantages of a sustained collaboration between the medical corps and the food industry. We paediatricians also believe that this understanding is necessary and that dietetics must build upon the data of medical research ever in progress. […] Your firm has currently become one of the largest global enterprises. […] Its extension and its very high reputation strike the paediatrician in any country, even the remotest.[123]

If the past decades were anything to go by, Nestlé had worked hard to earn the honour of hosting such an event in Switzerland. It had disbursed considerable sums on its new medical strategy. It had managed to sway even the most mercurial of paediatricians.

But, as Nestlé found out at its expense, there were limits even to its influence. In 1956, Fanconi asked Nestlé for a donation of 5,000 francs in order to fund a study trip to the Zurich *Kinderspital* for young European

paediatricians. Suffering a bout of donor fatigue, senior Nestlé administrators refused. Such a gesture, they feared, would otherwise create a precedent and embolden other paediatricians to ask for more money.[124] Fanconi was furious, and let Nestlé know in no uncertain terms. Company executives were unimpressed. 'What a contrast with the humility of someone like prof. Glanzmann', a Nestlé staffer involved in the dispute commented, 'who has never asked us for a single penny'.[125] Yet their refusal soon backfired. Nestlé's competitors were jostling for influence over paediatric medicine. Guigoz, in particular, was 'currently making big efforts to obtain, through financial means, entries into clinics which we had until now been able to obtain through friendship'.[126] Although Nestlé executives later relented and decided to accept Fanconi's funding request, the damage was done.[127] The eminent doctor had, in the meantime, accepted an equivalent donation from Guigoz. This meant that the rival brand was now bound to be used at the Zurich *Kinderspital*, where Nestlé products had previously enjoyed a monopoly.[128]

But Nestlé's missteps with medical partners was not its only source of trouble in the 1950s. The Second World War, in contrast with the First, had had very few impacts on Nestlé's medical strategy. Many of its programmes, whether in health philanthropy, clinical study, or the Nursery, continued all but unchanged through and past the conflict. However, as it became increasingly obvious to Nestlé managers in the 1950s, the post-war medical world was changing fast. If Swiss paediatricians continued to matter, it was now primarily because of their influence abroad.[129] An international turn was in the air for public health, and also for the firm's medical strategy. If it was to continue to thrive, Nestlé needed to prepare for new medical conquests in the emerging economies of Latin America, South Asia, and colonised Africa.

But medicine, like agriculture before it, was not the only field in which Nestlé's Swiss and international interests had to be reconciled. Throughout the first half of the twentieth century, the firm's professed involvement in development also found outlets in relief operations around the world.

Notes

1 Original emphasis. AHN 11727, Letter, C.Z. [Manager, *Service de documentation scientifique et médicale*], 'A l'attention de M. P.H.' [Nestlé executive, exact position unknown], 11 February 1957.

2 Ian G. Wickes, 'A History of Infant Feeding', *Archives of Disease in Childhood* 28, no. 140 (August 1953): 332–40; J. G. Wickes, 'A History of Infant Feeding. IV. Nineteenth Century Continued', *Archives of Disease in Childhood* 28, no. 141 (October 1953): 416–22; Apple, *Mothers and Medicine*; DuPuis, *Nature's*

Perfect Food; Valenze, *Milk*; Orland, 'Motherhood and Scientific Innovation: The Story of Natural versus Artificial Baby Food in the 19th Century'.

3 AHN, 11727, Letter, C.Z. [Manager, *Service de documentation scientifique et médicale*], 'A l'attention de M. P. H.' [Nestlé executive, exact position unknown], 11 February 1957.

4 Henri Nestlé, *Mémoire Sur La Nutrition Des Enfants En Bas-Âge* (Vevey, 1872).

5 Pfiffner, *Henri Nestlé*, 103.

6 On this topic, see chapters IV and V of Apple, *Mothers and Medicine*.

7 Catherine Rollet, 'La santé et la protection de l'enfant vues à travers les Congrès internationaux (1880–1920)', *Annales de démographie historique* 101, no. 1 (2001): 97–116; Sébastien Farré, 'Sauver l'enfance de la faim (1914–1923). L'internationalisation des pratiques philanthropiques', *Relations internationales* 161 (29 May 2015): 13–26.

8 Apple, *Mothers and Medicine*, 13; 84–85; See also Rima D. Apple, '"Advertised by Our Loving Friends": The Infant Formula Industry and the Creation of New Pharmaceutical Markets, 1870–1910', *Journal of the History of Medicine and Allied Sciences* 41, no. 1 (January 1986): 3–23; Valenze, *Milk*, 169–70; Carpenter, 'A Short History of Nutritional Science, Part 1', 641.

9 Jonathan Liebenau and Gregory J. Higby, eds, *Pill Peddlers: Essays on the History of the Pharmaceutical Industry*, An Urdang Publication on International Trends in Pharmaceutical History 13 (Madison, WI: American Institute of the History of Pharmacy, 1990); Christian Bonah and Anne Rasmussen, eds, *Histoire et Médicament Aux XIXe et XXe Siècles*, Société, Histoire et Médecine (Paris: Biotem & Éditions Glyphe, 2005).

10 Jeremy A. Greene, Flurin Condrau, and Elizabeth Siegel Watkins, eds, *Therapeutic Revolutions: Pharmaceuticals and Social Change in the Twentieth Century* (Chicago, IL: University of Chicago Press, 2016).

11 Paul Labarthe, *Dictionnaire populaire de médecine usuelle d'hygiène publique et privée* (Paris: C. Marpon et E. Flammarion, 1887), 535.

12 Apple, *Mothers and Medicine*, 75, 86.

13 See Apple, *Mothers and Medicine*, chapter IV.

14 Heer, *World Events 1866–1966*, 101.

15 Atkins, 'White Poison?'; Adel den Hartog, 'The Discovery of Vitamins and Its Impact on the Food Industry: The Issue of Tinned Sweetened Condensed Milk 1890–1940' in *Food and the City in Europe since 1800*, eds Peter Lummel, Professor Derek J. Oddy, and Professor Peter J. Atkins (Farnham: Ashgate Publishing, Ltd., 2012), 136–38; Apple, *Mothers and Medicine*, 134.

16 Kenneth J. Carpenter, 'A Short History of Nutritional Science: Part 2 (1885–1912)', *The Journal of Nutrition* 133, no. 4 (4 January 2003): 981; Kenneth J. Carpenter, 'A Short History of Nutritional Science: Part 3 (1912–1944)', *The Journal of Nutrition* 133, no. 10 (10 January 2003): 3025.

17 Dapples had joined Nestlé's board and general management in 1922. Heer, *World Events 1866–1966*, 137–44.

18 Pierre-Yves Donzé, *Bâtir, Gérer, Soigner: Histoire Des Établissements Hospitaliers de Suisse Romande*, Bibliothèque d'histoire de La Médecine et de La Santé (Chêne-Bourg: Georg, 2003), 52–59; 65; 73–76.

19 AHN, 496, Official document, 'Exposé des motifs et projet de décret autorisant l'acceptation d'un don conditionnel de un million de francs de la Société Nestlé & Anglo-Swiss Condensed Milk Co, à Vevey, en vue de la création d'une clinique médicale dépendante de l'hôpital cantonal et portant le nom de « Hôpital Nestlé »'.
20 AHN, 496, Newspaper clipping, *Feuille d'avis de Vevey*, 9 May 1935.
21 AHN, 496, Official document, 'Exposé des motifs et projet de décret autorisant l'acceptation d'un don conditionnel de un million de francs de la Société Nestlé & Anglo-Swiss Condensed Milk Co, à Vevey, en vue de la création d'une clinique médicale dépendante de l'hôpital cantonal et portant le nom de « Hôpital Nestlé »'.
22 AHN, 496, Letter from B. [*Directeur de la Banque cantonale vaudoise*/Director of State bank of Vaud] to E.M. [*Directeur*/Nestlé managing director], untitled, 8 November 1929.
23 AHN, 496, Newspaper clipping, 'Le million Nestlé', *Le pays vaudois*, 29 November 1929.
24 AHN, 496, Letter, M.P. [Nestlé senior manager] to E.M [Nestlé Administrator], untitled, 14 November 1929.
25 AHN, 496, B., Director of the *Banque cantonale vaudoise* to E.B. [Nestlé Administrator], 8 November 1929.
26 See e.g. Donzé, *Bâtir, Gérer, Soigner*; Thomas David, Alix Heiniger, and Felix Bühlmann, 'Geneva's Philanthropists around 1900: A Field Made of Distinctive but Interconnected Social Groups', *Continuity and Change* 31, no. 1 (May 2016): 127–59, https://doi.org/10.1017/S0268416016000114
27 Donzé, *Bâtir, Gérer, Soigner*, 98, 108.
28 On the history of the Nestlé Hospital, see Dave Lüthi, *Le compas & le bistouri: architectures de la médecine et du tourisme curatif l'exemple vaudois, 1760–1940* (Bibliothèque d'histoire de la médecine et de la santé: Lausanne, 2012); AHN, 496, letter, Louis Dapples [*Président de Nestlé*/Nestlé chairman] to Director of State bank of Vaud, untitled, 30 April 1930; Letter, Louis Michaud [*Chef du Service medical de l'Hôpital cantonal*/Head of medical department of the State hospital], untitled, 30 December 1927; Letter, to B. [Director of State bank of Vaud], 3 April 1929.
29 On the history of the Nestlé Hospital, see Dave Lüthi, *Le compas & le bistouri: architectures de la médecine et du tourisme curatif l'exemple vaudois, 1760-1940* (Bibliothèque d'histoire de la médecine et de la santé: Lausanne, 2012); AHN, 496, Newspaper clipping, *La Suisse*, 9 May 1935.
30 AHN, 496, Newspaper clipping, *Feuille d'avis de Vevey*, 2 March 1938.
31 AHN, 496, Newspaper clipping, 'L'hôpital Nestlé. Clinique médicale de l'université de Lausanne', *L'illustration*, June 1935.
32 AHN, 496, Brochure, 'Semaine médicale internationale, Montreux, 9–14 septembre 1935'.
33 AHN, 496, Newspaper clipping, *Feuille d'avis de Vevey*, 9 May 1935.
34 AHN, 496, Newspaper clipping, 'L'hôpital Nestlé. Clinique médicale de l'université de Lausanne', *L'illustration*, June 1935.
35 AHN, 496, Newspaper clipping, *Gazette de Lausanne*, 13 May 1935.
36 AHN, 496, Newspaper clipping, *Feuille d'avis de Vevey*, 2 March 1938.

37 Marie Tavera and Vincent Barras, *L'Hôpital de l'enfance de Lausanne: histoire d'une institution pionnière de la pédiatrie suisse* (Lausanne: BHMS, 2011); Susanne Suter and Armand Brulhart, eds, *Ages et Visages de La Pédiatrie: La Genèse Du Département de Pédiatrie, Genève* (Chêne-Bourg: Georg, 2001).
38 AHN, 496, Newspaper clipping, *Feuille d'avis de Vevey*, 19 November 1936.
39 AHN, 11727, Letter, C.Z. [Manager, *Service de documentation scientifique et médicale*] to J.C.C [Nestlé managing director], untitled, 24 April 1956; AHN, 11727, memo, 'Note à M. C…', 9 May 1956.
40 AHN, 459, Letter, E.M. [Nestlé managing director] to Louis Dapples, untitled, 19 November 1936.
41 AHN, 459, Letter, E.M. [Nestlé chairman] to A.P. [Directeur Général/Nestlé managing director], untitled, 9 February 1940.
42 AHN, 459, Letter, E.M. [Nestlé chairman] to A.P. [*Directeur Général*/Nestlé managing director], untitled, 9 February 1940.
43 AHN, 11727, Letter, E.M. [Nestlé chairman] to A.P. [Nestlé managing director], untitled, 30 July 1947.
44 AHN, 459, Letter, E.M. [Nestlé chairman] to A.P. [Nestlé managing director], untitled, 9 February 1940.
45 AHN, 11727, letter, to A.P. [Nestlé managing director], untitled, 30 July 1947.
46 Heer, *World Events 1866–1966*, 163; Apple, *Mothers and Medicine*, 48.
47 AHN, 11727, leaflet, 'Programme de la Semaine médicale internationale en Suisse. 9–14 September 1935', 1935.
48 Heer, *World Events 1866–1966*, 163–64; Pfiffner and Renk, *Nestlé, 150 ans*, 34.
49 Atkins, 'White Poison?'
50 Apple, *Mothers and Medicine*; DuPuis, *Nature's Perfect Food*.
51 Davin, 'Imperialism and Motherhood'; James Vernon, 'The Ethics of Hunger and the Assembly of Society: The Techno-Politics of the School Meal in Modern Britain', *The American Historical Review* 110, no. 3 (6 January 2005): 693–725.
52 See e.g. Apple, *Mothers and Medicine*, 75.
53 AHN, 459, report, 'Visite aux docteurs de la Suisse allemande', 19 March 1934.
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56 AHN, 459, report, 'Visite aux docteurs de la Suisse allemande', 19 March 1934.

57 AHN, 11727, memo, 'Note pour Messieurs B… et J.C.C…' [E.B. and J.C.C., Managing directors], 2 May 1956.
58 AHN, 11727, memo, C.Z. [Manager of *Service de documentation scientifique et médicale*], 'Note pour M. C…' [J.C.C., Deputy Administrator], 24 April 1956.
59 AHN, 11727, memo, 'Note pour Messieurs B. et J.C.C…' [E.B. and J.C.C., Managing directors], 2 May 1956.
60 AHN, 11401–2A, memo, 'A l'attention de la DG. Bacteriotherapie lactique', 30 October 1943.
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62 Boris Hauray and Philippe Urfalino, 'Expertise scientifique et intérêts nationaux', *Annales. Histoire, Sciences Sociales* 62e, no. 2 (1 April 2007): 273–98; Philip J. Hilts, *Protecting America's Health: The FDA, Business, and One Hundred Years of Regulation*, 1st ed. (Chapel Hill, NC: The University of North Carolina Press, 2004).
63 AHN, 11401–2, memo, 'A l'attention de la Direction générale. Essais cliniques', 16 October 1944; AHN, 11401–2, memo, 'A l'attention de la Direction Générale, Bacteriotherapie lactique', 30 October 1943.
64 AHN, 459, memo, C.Z. [Manager of *Service de documentation scientifique et médicale*], 'A l'attention de la Direction générale, NAAS. Pelargon (Visite aux médecins de la Suisse Allemande)', 31 January 1934.
65 AHN, 459, memo, C.Z. [Manager of *Service de documentation scientifique et médicale*], 'A l'attention de la Direction générale, NAAS. Pelargon (Visite aux médecins de la Suisse Allemande)', 31 January 1934.
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68 E.g. AHN, 459, extract from a medical publication, Feer, 'Der Wert der Sauer- und Trockenmilchen für den gesunden und den ernährungsgestörten Säungling' *Schweizerische Medizinische Wochenschrift* 22, June 1934.
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71 AHN, 459, memo, C.Z. [Manager of *Service de documentation scientifique et médicale*], 'A l'attention de la Direction générale, NAAS. Pelargon (Visite aux médecins de la Suisse Allemande)', 31 January 1934.
72 AHN, 459, memo, 'Visite aux docteurs de la Suisse allemande, 19 March 1934.
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74 AHN, 459, memo, Nestlé and Anglo Swiss Condensed Milk Co-Bureau de vente pour la Suisse, Vevey, Directeur, untitled, 23 September 1933.
75 AHN, 459, memo, Nestlé and Anglo Swiss Condensed Milk Co – Bureau de vente pour la Suisse, untitled, 23 September 1933.
76 AHN, 11727, memo, C.Z. [Manager of *Service de documentation scientifique et médicale*], 'A l'attention de M. P.H' [Nestlé chairman], 11 February 1957.
77 AHN, 11727, memo, E.B to J.C.C [Nestlé Deputy Adminsitrators], 18 June 1952.
78 AHN, 459, memo, 'Preiswerk, Visites à Bâle', 8 April 1933.
79 AHN, 11747, A.P. [Nestlé Managing director] to E.M. [Nestlé chairman], 21 July 1947.
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81 AHN, 459, memo, 'Visite aux docteurs de la Suisse allemande', 19 March 1934; AHN, 459, letter, B., 'Lettre à la direction', 25 May 1933.
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83 AHN, 459, memo [*Directeur*/Director], Nestlé and Anglo Swiss Condensed Milk Co – Bureau de vente pour la Suisse, 23 September 1933; 'Preiswerk, Visite à Bâle', 8 April 1922; AHN, 459, memo, 'Note pour nous', 21 April 1933; AHN, 459, letter, B., 'Lettre à la direction', 25 May 1933.
84 AHN, 459, letter, B., 'Lettre à la direction', 25 May 1933.
85 AHN, 459, memo, 'Visite aux docteurs de la Suisse allemande', 19 March 1934.
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119 Commune de Vevey, 'EAP-UAP Les Marionnettes', https://www.vevey.ch/eap-uap-les-marionnettes
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3

Great relief

A lone child in a tattered coat stands on a pile of rubble, skinny and despondent. Featured on the front page of the Swiss magazine *Radio Actualités* on 12 May 1944, this bleak picture introduced an issue dedicated to children, whom it portrayed as the worst-affected victims of a devastating war (Figure 3.1). The lion's share of the issue's coverage, however, did not go to children themselves so much as to the humanitarian organisations dedicated to helping them. An article paid homage to the Save the Children International Union (SCIU) and promoted an upcoming fundraising radio show held under its patronage, 'World Beats'. Elsewhere, a presentation of the work of the Swiss Red Cross, complete with a call for donations, spread over a full four pages. Then came a story about Nestlé. In tune with the rest of the issue, the piece sang the praise of the company's commitment to children:

> Among the innumerable industries that have emerged worldwide…there is one whose entire activity is marked by the following words: 'Serve the child', and of which one pioneer was Henri Nestlé. […] Therefore, wherever the food situation of the child becomes worrying, Nestlé stands with its products alongside the Red Cross in its admirable crusade on behalf of destitute children.[1]

Developed in collaboration with doctors over the past decades, Nestlé's dietetic products were, now more than ever, life-saving for children. Or so, at least, the article implied. As it concluded ominously, Nestlé's professed commitment to its humanitarian mission was bound to last. Even after the end of the war an 'immense amount of work [would still have] to be accomplished'.

With its melodramatic undertones, the magazine captured the anguish and hopes gripping Europe as Allied forces pushed through waning Axis defences. But although its primary focus was on present and imminent events, its evocation of Henri Nestlé's humanitarian principles also hinted to a more distant past. Romanticised as it may have been, this narrative was

Figure 3.1 Swiss magazine front page, 1944. *Source:* Scriptorium, Bibliothèque Cantonale et Universitaire Lausanne, BCU.

not entirely without historical grounds. Wars, famines, and natural disasters in the Western and colonial world had seen interactions between business and humanitarianism crop up in the nineteenth century. And perhaps more than any other issues, food and hunger were always central to these interactions. In the 1860s, newly minted industrialists such as Gail Borden in the United States started prospering by manufacturing foods that were used to boost the nutritional value of army rations.[2] In the wake of the signature of the Geneva Convention – the modern foundation of international humanitarian law – in 1864, humanitarian relief operations became increasingly common fixtures on battlegrounds. The demand for nutritious,

portable foods was high. Before long, industrial foods such as Borden's biscuits, Liebig's meat extract, and Nestlé's condensed milk became a familiar sight in mess tents, field hospitals, and humanitarian ambulances bearing the Red Cross symbol.

Nestlé's involvement in the humanitarian crises that tailgated the two World Wars built on these earlier experiences. But it also marked a turn in the history of business involvement in humanitarianism. More than a mere market, humanitarianism became part and parcel of Nestlé's corporate identity, becoming a cornerstone of the company's commercial, scientific, and political ambitions over the first half of the twentieth century. It laid the foundations of the firm's involvement in the post-war politics of international development.

Despite their entwined histories, business and humanitarianism have rarely been connected in the historical literature. While the capitalist roots of humanitarianism and the overlaps between business and humanitarian methods and technologies have been usefully documented, specific companies and businesspeople have largely escaped historical scrutiny.[3] The motives, modalities, and outcomes of business involvement in humanitarian aid have therefore remained elusive. Nestlé's relationship with the two illustrious humanitarian organisations with which it shared the limelight in *Radio Actualités* in 1944, the Red Cross and Save the Children, sheds light on this phenomenon. It is the story of these humanitarian ventures that this chapter explores.

From the Transvaal to the Balkans

It was once again in its home country, Switzerland, that the company tried its hand at helping humanitarian causes. Throughout the Belle Epoque, several company executives were well-known public figures not just for their role in business and politics but also as philanthropists, such as Gustave Roussy.[4] They were well-versed in the local politics and administration of relief and, following the adage that charity starts at home, made a habit of making financial or in-kind donations to Swiss 'humanitarian' institutions such as hospices and orphanages.[5] Under the aegis of executives in Vevey, Cham, Paris, and London, European branches of the company did the same in their respective countries. At the same time, Nestlé showed little interest in rescue operations abroad. Organisations such as the *Comité de secours pour les femmes et les enfants boers* or the Swiss Red Cross occasionally purchased Nestlé milk for the ambulances they sent to battlefields abroad.[6] These small-scale sales contributed to popularising the use of some Nestlé products for humanitarian purposes. Swiss newspapers reported

that humanitarian workers appreciated the 'great relief' that Nestlé's milk brought to the fight against the 'frightening' infant mortality witnessed in distant war zones, from the Transvaal to the Balkans.[7] But until the 1910s, interactions between Nestlé and international humanitarian organisations remained few and far between. This was due to the situation of Switzerland's budding international humanitarian sector more than to a lack of corporate enthusiasm.

Some ninety kilometres west of Nestlé's headquarters, at the opposite end of the eponymous lake, lay the town of Geneva. Following the signature of the Convention for the Amelioration of the Condition of the Wounded in Armies in the Field (commonly known as the Geneva Convention) by twelve European states in 1864, the City of Calvin prided itself in being the birthplace of modern international humanitarian law. It was also home to the International Committee of the Red Cross, which had been created in 1863 and had ardently lobbied for the adoption of the Geneva Convention. In principle, the Convention granted Red Cross organisations unfettered access to battlegrounds and allowed them to deliver humanitarian relief to wounded soldiers.

Despite these prestigious beginnings, the following decades found the ICRC marred by internal rifts. The organisation was conspicuously inactive during some of the most prominent conflicts of the late nineteenth and early twentieth centuries.[8] It also resisted calls to coordinate the nascent international Red Cross movement, which was mushrooming worldwide thanks to the creation of national Red Cross societies.[9] While some of these societies, for instance in the United States, maintained contacts with the banking industry, there are few traces of such links between the private sector and the ICRC.[10] Henri Dunant, a venture capitalist and co-founder of the ICRC, was dismissed from the movement after going bankrupt and being found guilty of business fraud. This was perhaps an apt illustration of the organisation's fraught relationship with business.

But the outbreak of the First World War heralded a new era for the ICRC. Through its newly created International Prisoners-of-War Agency, the organisation took up the task of tracing prisoners of war and interned civilians in order to restore contacts between them and their families.[11] It also took centre stage in the administration of field hospitals and the distribution of humanitarian parcels. Changes at play in Swiss politics contributed to this renaissance. During the First World War, neutrality, until then a Helvetic diplomatic tradition, was recast into a fully fledged doctrine.[12] The Swiss government now proclaimed neutrality as paramount to the country's survival. The purpose of this diplomatic stance was twofold. On the one hand, it aimed to maintain good relations with the Great Powers on both sides of the conflict. On the other, it purported to prevent the breakdown

of the country along the infamous *Röstigraben*, the figurative rösti curtain separating Switzerland's Germanophile East and its French-leaning West. Swiss authorities viewed humanitarian aid, which the Geneva Convention recognised as neutral, as a welcome emblem of unity.[13] It is against this backdrop that the organisation's links with the private sector started to thrive.

Nestlé too had good reasons for becoming more closely associated with humanitarians. Nestlé's role in Switzerland's war economy chiefly consisted of supplying milk to Swiss cities, sometimes at a loss, as its press releases liked to point out. In return, the firm obtained from the Swiss government to be exempted from some of the restrictions imposed by the Confederation's wartime trade policy, enjoying special export authorisations for its products. Although it was not unique to Nestlé, this arrangement was denounced by some Swiss politicians and newspapers as a form of immoral profiteering.[14] Nestlé's sudden profligacy with the Red Cross movement during the war may well have been a sincere reaction to an unprecedented humanitarian catastrophe. It could also have been a way of defusing these critiques. Between 1915 and 1918 the firm donated at least 300,000 francs to the ICRC, its International Prisoners-of-War Agency, the Swiss Red Cross, and the national Red Cross societies of belligerent countries.[15] Its contribution to the work of the Red Cross also took other practical forms. Between 1914 and 1918, Nestlé's Director for the Orient, Edouard Muller, who was based in Athens, was seconded to the ICRC as its delegate in the region. His work consisted of linking between the ICRC in Geneva and the Red Cross societies operating on the ground. Thanks to this secondment, press articles affirmed, the ICRC benefitted from Muller's management experience and from his local knowledge and networks in the region.[16] In 1920, Muller was awarded the Order of the Redeemer, a Greek decoration, for the 'numerous services he rendered for the tightening of Greek-Swiss relations and to the various Red Crosses in the Orient'.[17]

Millions dying of hunger

The late 1910s saw the topics of food and hunger grow into a pressing international concern. On the one hand, famine was spreading fast across Europe, something that policy-makers across the Western and colonised world could no longer ignore.[18] On the other, agricultural surpluses accumulating in countries such as the United States and Argentina were wreaking havoc not just on their own domestic food markets, but also on a convalescing global economy. A host of organisations, old and new, proposed to respond to these twin scourges. Amongst them were State-sponsored agencies, such

as the American Relief Administration (ARA), which delivered four million tonnes of food to Europe in 1918–19 alone – thereby also providing much-needed outlets for American agricultural surpluses.[19] Newly created international organisations, meanwhile, played a crucial part in bringing the topic to the fore of international politics. In 1921, the League of Nations' first High Commissioner for Refugees, Fridtjof Nansen, warned that while billions of tons of grain were left to rot in silos across the Americas, millions of people were starving to death in Russia.[20] Over the following fifteen years, the League of Nations (LoN) commissioned several international studies on hunger, agriculture, and nutrition.[21] Under the combined effect of brewing anticolonial sentiment and LoN scrutiny, pressure on colonial administrations was growing. Reluctantly, the French and British governments accepted to conduct surveys of agricultural production and nutrition in their respective colonial possessions.[22]

Humanitarian and religious organisations also played an important part in the international response to post-war famines. One of them, the Society of Friends (also known as the Quakers), had rescued victims of famine and exposed their plight to the public through press campaigns since the nineteenth century.[23] Equipped with a solid organisational, logistical, and fundraising expertise, they promptly set up large-scale relief operations in famine-stricken regions.[24] Another one of these organisations was the Save the Children Fund (SCF). The organisation was founded in 1919 to campaign against the blockade of Germany by the Allies, and specifically against the mass starvation that it was causing amongst children. Like other organisations, the SCF chose to make children its main beneficiaries because their perceived innocence would, it was hoped, appeal to donors.[25] It would also nullify the accusation, flaunted by some critics, that humanitarians were helping the enemy.[26] Child rescue soon became entrenched as a core principle of the SCF and of other relief organisations.[27] In 1920, Save the Children founder Eglantyne Jebb established the Save the Children International Union (SCIU) in Geneva, an advocacy organisation dedicated to the promotion of children's rights on an international scale.[28] In addition to its advocacy work, the SCIU also served as the umbrella organisation for the national Save the Children associations that spread across Europe and the Americas in the 1920s. The SCIU's campaigning efforts were rewarded with the adoption of the Declaration of the Rights of the Child (known as the Geneva Declaration) by the League of Nations in 1924.

But for all the respect it commanded for this success, the SCIU was not sheltered from difficulties. The years that followed the Geneva Declaration brought new challenges for the organisation. Dissent was growing within its secretariat over what its objectives should now be. This crisis, combined with increased competition between Geneva-based organisations over donor

funding, led to a steady decline of the SCIU's budget from the mid-1920s onward.[29] In order to stem its downfall, in the early 1930s the organisation tried to rebrand itself as a leader in the already crowded landscape of international child health and protection. In 1931, its Secretary General convinced a group of European, North American, and South African paediatricians to form a new organisation, the International Association of Preventive Paediatrics (IAPP), that was to serve as an advisory committee to the SCIU on matters of child health. The AIPP – known interchangeably as the SCIU's Medical Section – would also sit in its own right as a forum for the international circulation of knowledge and expertise on children's health.[30]

Nestlé, in the meantime, was experiencing difficulties of its own. In the wake of its financial crisis, the firm's experimentations with development politics came to a lull. Humanitarian aid was no exception. With the end of the First World War, the firm's humanitarian activities promptly shrank back to their pre-war levels.[31] Its relations with the SCIU illustrated this regression. In the first half of the 1920s, the SCIU purchased Nestlé products for relief operations in which it was involved alongside its local sections in Latvia and Greece.[32] These orders were reminiscent of Nestlé's pre-war attitude towards international humanitarianism; one limited to infrequent commercial transactions. Indeed, the next years only confirmed Nestlé's reluctance to build stronger links with Save the Children. At the turn of the 1930s, amidst spiralling financial difficulties, the SCIU tried to enlist Nestlé as a financial backer. The SCIU specifically hoped that Nestlé might accept to fund the activities of its Medical Section. After all, the Medical Section's membership significantly overlapped with Nestlé's own medical network. Their mutual friends included E. Glanzmann, G. Fanconi, and J. Taillens.[33] But Nestlé directors, wise to the the SCIU's fragile situation, declined to sponsor it. Whereas the firm had emerged from its financial crisis with a renewed and lasting enthusiasm for medicine and public health, its interest in humanitarianism was more durably dampened.

Nestlé nevertheless warmed to the SCIU in the following years. In 1936 the organisation, which was involved in relief operations in the Spanish Civil War, tried to purchase Nestlé milk for its work in Republican-held regions. Accepting to process these orders, Nestlé directors noted, would not come without risks for the company. It owned industrial facilities in Spain, and being seen as taking sides in the conflict could put it in jeopardy. The firm's Nationalist leanings, documented by their support to Franco's diplomatic representation in Bern from 1937, also were at odds with the prospect of helping Republican regions.[34] Nevertheless, Nestlé managers decided to authorise the sale, although they took care to have it executed by an inconspicuously named French Nestlé branch, the *Société*

de Représentations industrielles et commerciales (SORIC).[35] More generally, from the mid-1930s onwards Nestlé started viewing the SCIU as a potentially useful channel for the expansion of its medical and humanitarian network. The head of Nestlé's Scientific Documentation Service started monitoring the Medical Section's activities, and attended its annual congress in 1937.[36] Nestlé also advertised its products in the SCIU's flagship publication, the *Revue internationale de l'Enfant* (Figure 3.2).[37] These adverts illustrated subtle changes in the firm's proposed involvement in humanitarian assistance. Humanitarian campaigns typically relied on depictions of suffering victims. Nestlé's adverts in the *Revue*, by contrast, drew on the repertoire of science, high technology, and modernity, symbolised by Nestlé's research laboratories.[38] This approach foreshadowed the firm's portrayal of its own humanitarian and development activities in subsequent years.

The inter-war period, to sum up, marked a dip in Nestlé's humanitarian interest. The firm nevertheless kept an eye on the developments of the sector, and took notice of the growing enmeshment between humanitarianism and child protection. Once more, it was the outbreak of a global conflict that reignited its participation in humanitarianism.

Equilibrium between the belligerent powers

Nestlé's inter-war reorganisation culminated in 1936 with the creation of a holding in Switzerland, the Nestlé and Anglo-Swiss Condensed Milk Holding Company Limited. As the threat of war started looming large in the late 1930s, Edouard Muller, who took over as Nestlé chairman upon Dapples's untimely death in 1937, relocated to Stamford, in the United States. It is from this new base that, from the outbreak of the Second World War in Europe, he managed the group's American and British affairs. Relatively shielded from the worst of wartime disruptions and boosted by government orders, Nestlé's business in the Atlantic region prospered during the conflict.[39]

The situation of the firm in continental Europe was more worrying. For the acting chairman and senior managers who supervised Nestlé's European affairs from Vevey, the main objective was to avoid antagonising either party to the conflict. This was a delicate balancing act. On the one hand, Nestlé companies in Germany manufactured 'important quantities of [dried] skimmed milk for the Wehrmacht'.[40] Part of their profits were repatriated to Switzerland, where they helped bolster the dwindling turnover of the holding. Nestlé directors hoped to invest the remainder in new Romanian, Slovakian, and Hungarian ventures.[41] Mooted between 1942 and 1944, these plans were contingent on German approval. On the other

hand, Nestlé's manufacturing capacity in Switzerland was stymied by raw materials shortages, which were caused by the Allied blockade of Europe.[42] Finding some leeway in these wartime trade restrictions by cooperating with the Allies was therefore of equal importance for the firm.[43] Like its home country, Nestlé, as one staffer put it, had to 'find a state of equilibrium between the belligerent powers'.[44] Channelling the Swiss spirit of neutrality, Nestlé executives set out to enhance the firm's image of impartiality in order to protect its interests on the continent. Humanitarian aid came into focus as a way of achieving this elusive balance.

Nestlé's renewed interest in humanitarianism first materialised through its sponsorship of humanitarian parcels. In the first few months of the war, Vevey started keeping track of those of its employees and former medical allies who had been made PoWs in Europe, with the help of the ICRC's International Prisoners-of-War Agency.[45] The firm also created its own Prisoners of War section in order to manage this programme. Nestlé directors professed to be moved by a sense of moral duty towards these 'poor fellows'.[46] But they also had more utilitarian concerns. By adding doctors to their list of beneficiaries, they also hoped that these happy few would 'later display what we trivially call the "gratitude of the stomach"'.[47]

Having initially targetted only a few dozen former employees and associates, from 1941 the programme was scaled up in order to include multiple collective parcel shipments to groups of PoWs of different nationalities (Table 3.1).[48] At that point Nestlé administrators decided to delegate the execution of this expanding programme to the International Committee of the Red Cross. This was an obvious choice. Since the beginning of the conflict, the organisation acted as a humanitarian parcel posting system between the Red Cross societies of the main belligerent countries: Germany, Italy, the United States, UK, France, and those of neutral countries (for instance the Argentinian and Swiss Red Cross, and the Turkish Red Crescent). In these countries the families of PoWs, philanthropists, and Red Cross societies themselves funded and prepared humanitarian parcels. These were shipped to the ICRC in Geneva, which in turn dispatched them to their country of destination where they were distributed by the local Red Cross society.[49] The ICRC, in short, represented Nestlé's best chance of securing a competent humanitarian partner. From 1941, the main interlocutor of Nestlé's Prisoners of War section was Lucie Odier, an experienced nurse, delegate at the ICRC's Relief Division, and later one of the first women to sit on the organisation's executive committee.[50]

In Nestlé's view, the ICRC's reputation of neutrality was another important aspect of the collaboration. As correspondence between Nestlé managers and Odier regularly underlined, Nestlé's objective with the collective parcel shipments was to oil the wheels of its wartime diplomacy.

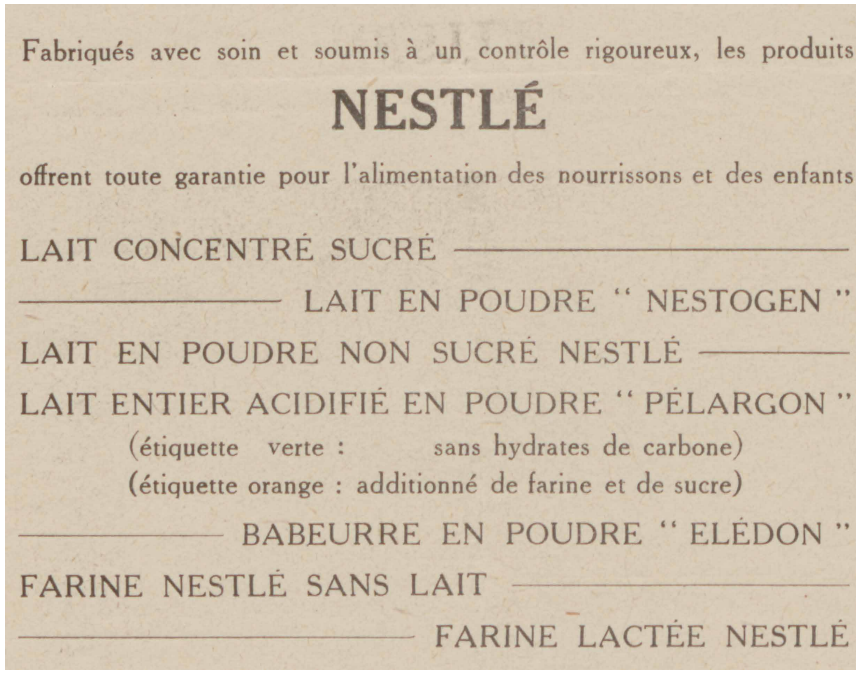

Figure 3.2 Proofs for Nestlé advert. Revue Internationale de l'Enfant, 1939, *Source:* AEG Archives privées 92.33.109, Relation de l'UISE avec l'entreprise Nestlé: correspondance diverse, rapports de voyage, dons, commandes de marchandises, réalisation et distributions du film de 'Bébé', publicité, etc., 1922–1967.

Nestlé's 'alignment' with the ICRC's 'line of conduct' would, Nestlé directors hoped, reinforce the firm's reputation of 'fairness' with the belligerents.[51] The ICRC did not appear to mind being a cog in the machine that was Nestlé's wartime strategy. Odier herself advised, Nestlé to inform national authorities and local Red Cross societies of the shipments it made to their respective nationals, noting that this would help the firm make friends in high places.[52]

With a budget capped at 10,000 francs per year and totalling no more than 70,000 francs over the entire duration of the conflict, the cost of the parcel initiative was resolutely kept 'within a reasonable range'.[53,54] Yet despite its modest scale, the programme marked the beginning of a new wartime alliance between the ICRC and Nestlé, the advantages of which became apparent as the conflict unfolded.

The first of these advantages was to give the firm a privileged access to a growing wartime humanitarian market. Between 1940 and 1946, Nestlé sold an estimated 600 tonnes of condensed milk to the ICRC, in addition to smaller quantities of dried milk and cocoa.[55] At a conservatively estimated

Figure 3.3 Proofs for Nestlé advert. Revue Internationale de l'Enfant, 1939. *Source:* AEG Archives privées 92.33.109, Relation de l'UISE avec l'entreprise Nestlé: correspondance diverse, rapports de voyage, dons, commandes de marchandises, réalisation et distributions du film de 'Bébé', publicité, etc., 1922–1967.

Table 3.1 Nestlé collective parcel shipments in 1941

Germans:	*Frs. 450,--*
British:	*Frs. 270,18*
Belgians:	*Frs. 130,23*
French:	*Frs. 2.235,22*
Miscellaneous (Gurs camp):	*Frs. 40,80*
Greeks:	*Frs. 198,70*
Italians:	*Frs. 437,20*
Total	*Frs. 3.762,33*

Source: Reproduced from Note à l'attention de M. P., 8 July 1941, AHN Comité international de la Croix-Rouge

1.12 million francs, the value of these sales was not to be sneezed at, even if they remained modest in proportion of the firm's turnover during the war, or of the 122,000 tonnes of food and supplies that the ICRC purchased for its operations during this period.[56]

But there were further perks to Nestlé's business relationship with the ICRC. In 1941, Swiss authorities imposed restrictions on the export of condensed

milk. These exports were now authorised only on the condition that prospective exporters should be able to import equivalent quantities of another vital commodity. To complicate matters, in order to meet this requirement, prospective exporters had to obtain a partial waiver from the import quotas imposed on Switzerland by the Allies. As an exporter of condensed milk, the ICRC had to abide by the new Swiss regulation. Considering its humanitarian status, obtaining the required authorisations from the Allies did not pose a problem. However, the organisation was not usually in the business of importing raw materials, and was at a loss as to how to fulfil its new obligation to the Swiss government – and how to cover its cost. To whom could the ICRC turn, but to its largest condensed milk supplier, Nestlé?[57] The two organisations agreed to request that the ICRC's import duty and allowance be shouldered by the firm. Neither the Swiss nor the Allied authorities had any objection. The British were particularly amenable after seeing Nestlé 'take to heart the situation of British PoWs'.[58] By the firm's own admission, Nestlé 'benefitted to a noticeable extent' from these 'compensation agreements', which were negotiated and processed by the ICRC.[59] Soon the firm was granted extra import authorisations for essential materials of its choice, in quantities equivalent in price to the materials it used in the manufacture of the products it sold to the ICRC.[60] In 1941, for instance, a shipment of four thousand cases of Nestlé condensed sweetened milk and of 3.6 tonnes of Nestlé chocolate to British PoWs enabled Nestlé to import ninety-five tonnes of green coffee beans.[61]

Though less tangible, symbolic and reputational considerations were also central to Nestlé's involvement in the humanitarian sphere during and in the aftermath of the war. Although they made no secret of the commercial motives of their collaboration with the ICRC, Nestlé administrators approved of collaborations that did not bring the firm any immediate material gains. The secondment of Nestlé staff to ICRC operations in Switzerland and abroad was a good example.[62] Most prominent amongst these secondments was that of the director of the Nestlé company in Algiers as ICRC delegate in North Africa.[63] Like with Muller in the previous World War, the businessman's 'knowledge and experience' would, the ICRC believed, be an asset for the ICRC's work in the country, which hosted ten thousand PoWs.[64] Nestlé also regularly offered the ICRC free storage and office space. It occasionally manufactured products for the ICRC at cost price.[65] These collaborations tightened personal and professional bonds between the two organisations, and helped Nestlé become ever more enmeshed in the politics of humanitarian assistance.

The 'Nestlé affair'

As it soon transpired in the aftermath of the war however, Nestlé's humanitarian partnerships could be a double-edged sword. In 1946 the ICRC

discovered that Ideal, the brand of unsweetened condensed milk it had bought from Nestlé throughout the war, only contained 7.9 per cent fat. This fell short of the 9.6 per cent fat considered standard for this product; indeed, routine tests run on the same Nestlé product by the Red Cross in 1943 had shown that the product contained, at the time, 9.6 per cent fat. The decrease, as well as resulting in a sub-standard product, had never been communicated by the firm. Red Cross representatives demanded explanations.

In subsequent talks between representatives of the two organisations, the firm defended itself against the implication that it had deceived the Red Cross and provided a low-quality product. Its milk, Nestlé's negotiator argued, met the internationally accepted standard of a 7.9 per cent fat content for unsweetened condensed milk. Furthermore, the Red Cross had never specified a minimum fat content in its orders. Nestlé had therefore never been under any contractual obligation to provide a higher-fat product, although it may have done so occasionally when it had excess stocks.[66]

Nevertheless, company executives sensed that the dispute could be harmful to the firm's reputation. As a gesture of reconciliation for what the ICRC perceived as a shortfall in its purchases of milk fat, they proposed to settle the issue through a payment of 75,000 francs to be labelled as 'reimbursement for purchases of milk'.[67] The payment, Nestlé insisted, should 'by no means be interpreted as a recognition by the firm of an error or a deceit on the quality of the merchandise'.[68]

Unfortunately for the company, a few months later a well-known Swiss businessman and long-term enemy of Nestlé, Gottlieb Duttweiler, broke the affair to the public. The founder of the chain of shops Migros and of several newspapers, Duttweiler accused Nestlé of having defrauded Swiss humanitarian organisations by selling them subpar products. Nestlé, he further alleged, had subsequently bought the silence of these organisations through a secret settlement.[69] For a few months, the Swiss press delighted in reporting the latest blows and counter-blows of the 'Nestlé affair'.[70] Much to the annoyance of Nestlé directors, the case was eventually brought before several local and Federal courts in Switzerland.[71]

Though unpleasant, this misfortune was yet another formative public relations experience for the company. Nestlé directors learnt to leverage the language of humanitarianism in order to defend themselves against claims that their firm had profiteered from its business relationships with the Red Cross at the expense of the victims of the war. Company spokespersons released statements in the press admitting that Nestlé had, indeed, manufactured unsweetened condensed milk with a 7.9 per cent fat content. This, the firm argued, had only been the case between 1945 and 1947 due to shortages. Its main motive for this unusual move, it argued, had been to 'maintain…at the request of the main Swiss paediatricians, the 10% fat content of the sweetened condensed milk manufactured for Swiss babies'.[72] The health of Swiss babies, this

reasoning implied, had trumped all other considerations. Unsweetened condensed milk, by contrast, was not usually used as a food for infants and therefore its fat content was less vital.

Although initial inquiries by the Office of Price Control in 1947 cleared Nestlé of unlawful profiteering, these arguments ultimately failed to convince Swiss courts. In January 1949, following a string of rulings and appeals, the Supreme Criminal Court of War Economy condemned Nestlé to a 60,000 franc fine, while André Perrochet, as its administrator, received a 10,000 franc fine for his role in the affair.[73] This ruling was not only 'considerably harsher' than what the company's lawyers had hoped, but also one of the first major reputational setbacks for the firm since the milk wars of the 1910s.[74]

Yet even this setback turned into an opportunity for Nestlé. After its condemnation, the company licked its wound. It decided to keep a low profile and avoid commenting on the court ruling in the press, in order to avoid 'prolonging the polemic'.[75] This approach bore fruit. As early as 1948, Nestlé and the ICRC started talks in order to resume their business relationship.[76] It was not long before Nestlé was reinstated as a regular donor and supplier of the ICRC, a status it continued to enjoy for decades thereafter.[77] The Nestlé affair, it became clear, would not durably alter Nestlé's purported commitment to supporting humanitarians.

Markets of the other hemisphere

The firm's links with the SCIU during the Second World War also showcased this commitment, this time on an international scale. On the eve of the Second World War a Swiss national, Georges Thélin, was appointed as the new Secretary General of the SCIU. The nomination aimed to reassert the organisation's neutrality in the fast-approaching conflict. However, it had another unintended consequence. Thélin was a former school friend of general manager and member of the board of the Nestlé and Anglo-Swiss Condensed Milk Company's, André Perrochet. The two men's former comradeship rekindled Nestlé's relationships with the SCIU. The motives behind this rapprochement were nevertheless pragmatic. On the one hand, the SCIU's ever-deepening financial difficulties pushed its new Secretary General to try, once again, to secure the firm's financial support. On the other hand, against a backdrop of trade disruptions, Nestlé administrators became increasingly interested in harnessing the SCIU's influence over international child protection and welfare.

One of the objectives of a partnership with the SCIU, for Nestlé, was to 'obtain, in the domain of child nutrition, a kind of exclusivity' and even of 'quasi-monopoly' on the provision of milk to the member organisations of

the SCIU.[78] As Perrochet candidly put it to Thélin, the firm hoped to be 'able to count on a priority, at least vis-à-vis our competitors', in the supply of infant feeding products to member organisations of the international Save the Children movement.[79] Thélin was happy to oblige; the SCIU would, he told Nestlé, 'always be happy for the purchases for which it could, either directly or through its organisations or delegations…give preference to Nestlé products'.[80] In the absence of reliable records of the firm's sales during the war, the commercial significance of these tacit agreements remains hard to evaluate. However, by their own account, Nestlé directors did not expect 'immediate practical results' so much as long-term benefits. The SCIU, they believed, constituted 'an organisation which in the long run can only benefit the diffusion of our specialities for children'.[81]

The second benefit that Nestlé directors hoped to draw from an alliance with the SCIU was a closer collaboration between local Save the Children organisations and local Nestlé companies. In Latin America in particular, such a 'decentralised formula' of collaboration, they hoped, could bring the company multiple advantages. These included the 'regular consumption' of Nestlé products in child health centres run by Save the Children organisations, 'the introduction, under the guise of the SCIU, of a new specialty in relation with child welfare', the diffusion of Nestlé 'advice to mother' brochures as 'official brochures sponsored by the SCIU', and the facilitation of new 'friendships' between Nestlé and the local medical community.[82] SCIU member organisations therefore represented 'an excellent means of indirect propaganda of our products'.[83] In addition, Save the Children affiliates could help Nestlé gather intelligence on the local needs in infant feeding products. Partnering with the SCIU, to conclude, would allow Nestlé to pursue its 'action of penetration in a certain number of markets that are interesting for our specialties'.[84] It therefore constituted 'an affair of much greater stature which covers markets of the other hemisphere' – the Southern one – 'where we precisely have to expand'.[85] Thélin was once again eager to help. The SCIU could, he affirmed, 'facilitate, through its actions and its relations, studies, gather information on the needs for dietetic products for instance. We could consider surveys that could bring you, from the viewpoint of the markets, useful indications'. Although Nestlé directors were frequently frustrated with the SCIU and its member organisations, which they considered slow and inefficient, the wartime exchanges between the two organisations helped entrench Nestlé's influence in child health and nutrition policy in new regions of the globe.

Finally, as the Second World War drew to a close, Nestlé administrators became increasingly aware of the benefits they could draw from an alliance with the SCIU not only at the level of individual foreign countries, but also in their dealings with international organisations. Taking stock of the growing

momentum for international coordination in the field of child protection and health, which were encapsulated by the creation of UN agencies such as the United Nations Relief and Rehabilitation Administration (UNRRA) in 1943, the United Nations Children's Emergency Fund (UNICEF) in 1946, and the World Health Organization (WHO) in 1948, Nestlé directors hoped to see the company 'enter these clockworks more and more by striving to become some sort of "unofficial advisors" for everything linked to child nutrition'.[86] Provided it had the funds and demonstrated 'sufficient authority to influence and guide public officials', the SCIU could be a useful channel for Nestlé's influence over this nascent international system.[87]

This enterprise relied on the SCIU's medical section, the IAPP, whose recommendations influenced international child health policy. For Nestlé, it was 'in our interest that these guidelines, especially in the domain of child nutrition, should be in harmony with ours' and to see 'the Medical Section adopt our methods rather than go against them'.[88] C.Z., the head of the Service of Scientific and Medical Documentation at Nestlé, had already played an active part in the revival of the activities of the IAPP during the war. From 1942, he had helped the IAPP coordinate surveys amongst European paediatricians, and steered these surveys towards topics of interested for Nestlé: wartime child nutrition and food rationing policies.[89] In the aftermath of the war, Nestlé continued to be involved in the SCIU's international research agenda, including by granting the SCIU an annual budget of 5,000 francs to run its new Documentation Section.[90] In 1950, Nestlé produced an educational film on childcare. Partially shot in the Nestlé Nursery in Vevey, the film focused primarily on infant feeding, and in particular on 'substitution foods'.[91] At the SCIU's request, it was translated into English, Spanish, and German. The Union screened the film under the auspices of its local member organisations in Great Britain, France, Italy, Finland, Germany, Greece, Turkey, Lebanon, India, Peru, Argentina, Uruguay, and South Africa.[92] The Union's endorsement brought the documentary to an international audience that it would otherwise have struggled to reach, considering that as a private company, Nestlé would have had to go through stringent customs procedures, something that as an international organisation the SCIU was exempted from.[93] And this was only the beginning of Nestlé's joint ventures with international organisations in the Southern hemisphere in the post-war period.[94]

Conclusions

The Second World War saw Nestlé's collaboration with humanitarians reach unprecedented heights. At the end of the conflict, its participation in Red

Cross operations was paraded in the Swiss press as a symbol of the private sector's contribution to humanitarian relief during the war:

> On seeing, in the [Nestlé] warehouses, cases covered with Greek labels or with red crosses, one thought of the thousands of children whose lives have been saved thanks to the unrelenting work of the workers, technicians, and directors of this factory.

Admittedly there were always downsides to Nestlé's humanitarian collaborations. The ICRC's custom was a mixed blessing for the firm considering the legal mishaps it triggered. Nestlé's dealings with the SCIU also brought their fair share of mutual disenchantment. Thélin's main motive for approaching Nestlé was the survival of his organisation. Yet the company showed no sign of wanting to humour his ambitious quest for funds. Nestlé, meanwhile, hoped that the SCIU might turn into an important post-war partner; one that may help prop the sales of its infant formula in new foreign markets and deepen its involvement on the international development scene. Whether this was true remained to be seen in 1945.

But there was a lesson in these ups and downs. However awkward they may be, Nestlé's disagreements with the operators of development were almost always short-lived. Just like in its past disputes with Swiss farmers and doctors, Nestlé emerged largely unscathed from challenges to its reputation following its low-fat milk debacle with the Red Cross. As historical records sometimes made clear, the expectation that the firm would always be a potential donor went a long way to appease opponents, be they an illustrious paediatrician or a reverred humanitarian organisation.

On balance, Nestlé's involvement in development during the first half of the twentieth century yielded a net profit for the firm. It admittedly had a cost. Whether in agriculture, health, or humanitarianism, Nestlé had to deploy creative public relations strategies in order to win over decision-makers. It made considerable financial commitments to these causes. This was not always enough to avoid conflict. But the rewards largely outweighed the risks. By the middle of the century the firm enjoyed a largely positive publicity thanks to its ventures in development. It had accrued a precious social capital and an ever-growing network of friends and allies amongst medical experts, State authorities, and humanitarian NGOs. It had reaped the benefits of the growing infant health and humanitarian markets that its collaborations with development actors had helped create. How this experience may serve the firm in the world of post-war international development was to occupy Nestlé executives for years to come.

Notes

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53 AHN, 1290, letter, E.M. [Nestlé chairman] to M.P. [Nestlé managing director and vice-chairman], 13 September 1940.

54 Between November 1940 and February 1941, Nestlé's donations to the ICRC, whether in kind or cash, amounted to about 2,300 fr. (1,200 fr. to German and Italian PoWs, 2,200 fr. to French PoWs) (AHN, *Comité international de la Croix-Rouge*, memo, 'Note à l'attention de M. P.' [M.P., Nestlé managing director and vice-chairman], 8 July 1941; AHN, *Comité international de la Croix-Rouge*, memo, 'DONS faits par le canal du Comité international de la Croix-Rouge, Genève', undated). From July 1941 to July 1942, they totalled 4,000 fr. for all prisoners (AHN, *Comité international de la Croix-Rouge*, memo, 'DONS faits par le canal du Comité international de la Croix-Rouge, Genève', 9 March 1942). Further correspondence indicates that Nestlé planned to cap its overall budget for parcel shipments to 20,000 in 1940 (see AHN, 1290, letter, M.P. [Nestlé managing director and vice-chairman] to E.M. [Nestlé chairman], 20 September 1940), and to 10,000 in 1941 (AHN, *Comité international de la Croix-Rouge*, memo, Li., 'Note à l'attention de la direction générale', 9 May 1941), Spending for the first nine months of 1944 was in the region of 10,000 fr. (AHN *Colis-Secours*, memo, 'Envois aux prisonniers de guerre, au 30 septembre 1944', undated).

55 This figure is an estimate based on multiple records. Sales of condensed milk between August 1943 and November 1946 totalled 29,078 cases, AHN, 11226, memo, 'Commission mixte de secours de la Croix-Rouge internationale', 28 November 1946; Archives du Comité International de la Croix-Rouge (hereafter ACICR), O CMS G 038 05, memo, 'PV de la séance avec M. Loescher, directeur de la société Nestlé S.A. à Vevey, le 5 décembre 1946' undated. Sales of condensed milk to the ICRC as of December 1941 totalled 11,835 cases. These figures do not account for sales of other products such as powdered milk and Nestlé's dietetic products (e.g. Eledon), which were considerably smaller. Data is missing for the year 1942 and for the period January–August 1943. AHN, *Comité international de la Croix-Rouge*, 'Détail de nos livraisons au Comité international de la Croix-Rouge à Genève', 24 December 1941.

56 For ICRC figures, see Farré, *Colis de Guerre*, 160–62. In the absence of reliable data, this estimate is based on Nestlé's pricing policy with humanitarian organisations in 1939. AEG, 92.33.109, letter, Nestlé to SCIU, 23 December 1939. Although figures on the turnover of the Nestlé holding during the war are not available, they increased from 480 to 679 million francs between 1938 and 1945: see Pfiffner and Renk, *Nestlé, 150 ans*.

57 AHN, *Comité international de la Croix-Rouge*, Lé. [Nestlé manager, exact position unknown] to Odier [Delegate, *Division des Secours*/ICRC Relief Division], 11 July 1941.
58 AHN, 1290, Li. [Nestlé manager, exact position unknown], 'Note à l'attention de la Direction Générale', 14 August 1940.
59 AHN, *Comité international de la Croix-Rouge*, Li. [Nestlé manager, exact position unknown], memo, 'Note à l'attention de la Direction Générale', 2 March 1942.
60 AHN, *Comité international de la Croix-Rouge*, memo, 'Croix-Rouge, Compensation pour les envois faits aux prisonniers britanniques', 31 March 1941; AHN, *Comité international de la Croix-Rouge*, memo, 'Note à l'attention de la Direction Générale', 14 May 1941; AHN, *Comité international de la Croix-Rouge*, 'Note à l'attention de la Direction Générale', 17 June 1941.
61 AHN, *Comité international de la Croix-Rouge*, letter, from *Service des transports à département fédéral de l'économie publique*, untitled, 28 August 1942.
62 AHN, 1290, Jacques Chenevière [founder and chief, International Prisoners-of-War Agency, International Committee of the Red Cross] to Président de la Nestlé and Anglo Swiss Holding Co [Nestlé chairman], 7 September 1940; AHN, *Comité international de la Croix-Rouge*, memo, 'Note à l'attention de M. G.', 23 April 1942.
63 AHN, *Comité international de la Croix-Rouge*, memo, 'Note pour Monsieur A. P.' [A.P., Nestlé managing director], 5 October 1942; AHN, *Comité international de la Croix-Rouge*, memo, 'Note à l'attention de la direction générale', 24 September 1942.
64 AHN, *Comité international de la Croix-Rouge*, memo, Li [Nestlé manager, exact position unknown], 'Note à l'attention de M. P.' [A.P., Nestlé managing director], 17 September 1942.
65 AHN, 1290, letter, F.-C. [Member, ICRC] to M.P. [Nestlé managing director and vice-chairman], 24 July 1945; AHN, *Comité international de la Croix-Rouge*, letter, Z. [*Département commercial, Commission de Secours, CICR-AIPG*/ Commercial Department, Relief Commission, ICRC/International Prisoners-of-War Agency], to Société des Produits Nestlé S.A., 14 October 1942.
66 ACICR, O CMS G 038 05, memo, 'Procès-verbal de la séance tenue avec M. Loescher', 27 November 1946; ACICR, O CMS G 038 05, memo, 'Procès-verbal de la séance tenue avec M. Loescher, directeur de la société Nestlé S.A. à Vevey, le 5 décembre 1946', undated. AHN, 10C, 'Documents concernant la Commission mixte de secours de la Commission mixte de secours de la Croix-Rouge internationale, Don suisse, Croix-rouge, Secours aux enfants', undated.
67 AHN, 10C, 'Documents concernant la Commission mixte de secours de la Commission mixte de secours de la Croix-Rouge internationale, Don suisse, Croix-rouge, Secours aux enfants', undated; 'L'affaire Nestlé', *Gazette de Lausanne*, 4 June 1947; 'L'affaire Nestlé n'est pas tirée au clair', *Journal de Genève*, 9 June 1947.

68 ACICR, O CMS G 038 05, memo, 'Procès-verbal de la séance tenue avec M. Loescher, directeur de la société Nestlé S.A. à Vevey, le 5 décembre 1946', undated.
69 AHN, 10C, 'Documents concernant la Commission mixte de secours de la Commission mixte de secours de la Croix-Rouge internationale, Don suisse, Croix-rouge, Secours aux enfants', undated.
70 'L'affaire Nestlé', *Gazette de Lausanne*, 4 June 1947; 'L'affaire Nestlé', *Journal de Genève*, 6 June 1947; 'L'affaire Nestlé – Un communiqué de la Commission Mixte de secours de la Croix-Rouge internationale', *Journal de Genève*, 12 June 1947; Affaire Nestlé? Affaire Duttweiler'? *La Suisse*, 3 October 1947.
71 AFS, E7100–01#197010#574, memo, 'Notiz an Herrn Bundesrst Dr W. Stampfli, Chef des eidg. Volkswirtschaftsdeparements', 21 January 1947; AFS, E7100–01#197010#574, memo, 'Notiz an Herrn Pahud. Betr. Fall Nestlé', 8 October 1947.
72 SFA, E7100–01#197010#574, Press communiqué, 'Communiqué de la Société des Produits Nestlé S.A. à publier intégralement', undated.
73 AHN, 10C, press clipping, 'Publication d'un jugement', *Berner Tagblatt*, 4 January 1949.
74 AHN, 10C, letter, Bé. [solicitor] to Br. [manager, *Société des Produits Nestlé* (Nestlé company in Switzerland), exact position unknown]; see also Chapter 1.
75 AHN, 10C, letter, Bé. [solicitor] to E.B. [senior manager, exact position unknown], 20 January 1949.
76 AHN, 10C, memo, 'Entrevue avec M.F. B. du 1.9.48', undated.
77 ACICR BAG 313 012, letter, Le Fort to Rivollet, 21 August 1972; ACICR BAG 285 065 01, letter, Riquez to Ammann, 3 March 1953.
78 AHN, 829, letter, untitled, 23 July 1941.
79 AEG, 92.33.109, letter, André Perrochet [Nestlé managing director] to Georges Thélin [Secretary General, SCIU], 5 May 1941.
80 AEG, 92.33.109, Georges Thélin [Secretary General, SCIU] to André Perrochet [Nestlé managing director], 16 October 1942.
81 AHN, 829, memo, untitled, 4 September 1941.
82 AHN, 829, memo, untitled, 4 September 1941.
83 AHN, 829, memo, 23 July 1941.
84 AHN, 11370, memo, untitled, 21 August 1946.
85 AHN, 829, memo, 23 July 1941.
86 AHN, 11370, memo, untitled, 30 September 1946. On the topic of post-war international child protection, see Black, *The Children and the Nations*; James A. Gillespie, 'International Organizations and the Problem of Child Health, 1945–1960', *Dynamis (Acta Hisp. Med. Sci. Hist. Illus.)* 23 (2003): 115–42; Jessica Reinisch, 'Internationalism in Relief: The Birth (and Death) of UNRRA', *Past & Present* 210, no. suppl_6 (1 January 2011): 258–89.
87 AHN, 11370, memo, untitled, 15 March 1947.
88 AHN, 829, L., memo, 23 July 1941.
89 AEG, 92.33.109, letter, R. Charbonnier [Secretary, SCIU] to Christian Zbinden [manager, *Département de la Documentation scientifique et médicale*], 12

March 1942; AEG, 92.33.109, Georges Thélin [Secretary General, SCIU] to Christian Zbinden [manager, *Département de la Documentation scientifique et médicale*], 12 February 1942.

90 AEG 92.33.109, letter, A. Morier [*Présidente du Comité exécutif*/Chairwoman of the Executive Committee, SCIU] to Paul Hüsler [Directeur-Adjoint/deputy-managing director, Nestlé], 1 December 1952.

91 AEG, 92.33.109, letter, M. Vonder Mühll [Deputy-Scientific Advisor, Nestlé S.A.] to Georges Thélin [Secretary General, SCIU], 3 February 1948; AEG, 92.33.109, Film synopsis, 'Film Bébé', undated.

92 AEG, 92.33.109, letter, Georges Thélin [Secretary General, SCIU] to W. Martin [International Advertisement service, AFICO (Nestlé technical assistance branch)], 4 November 1952; AEG, 92.33.109, letter, A. Morier [President of the Executive Committee, SCIU] to Enrico Bignami [Nestlé managing director], 19 December 1952; Georges Thélin [Secretary General, SCIU] to Christian Zbinden [manager, *Département de la Documentation scientifique et médicale*], 18 January 1952.

93 AEG 92.33.109, letter, Christian Zbinden [manager, *Département de la Documentation scientifique et médicale*] to Georges Thélin [Secretary General, SCIU], 7 June 1950.

94 *Journal de Genève*, 29 January 1946.

Part II

International development

4

To help underdeveloped countries

In 2016 Nestlé celebrated its 150th anniversary. To mark the occasion, the firm inaugurated a new museum and conference centre in the freshly renovated building of Henri Nestlé's historic first factory in Vevey.[1] The Nest, as the venue was called, was short-lived: due to a lower-than-expected turnout, it closed three years later, and has since become home to the global headquarters of Nespresso. This mishap aside, 2016 also coincided with the centenary of the creation of Nestlé's first company on the African continent, in South Africa. Commenting on this double milestone, a Nestlé spokesperson declared:

> Rather than talking about the economic weight of Africa in our turnover, we prefer to note Nestlé's contribution to the development of Africa […] We continue to invest in infrastructure, industrialisation, job creation and the training of collaborators.[2]

This kind of language was nothing new for the company's public discourse on Africa. In fact, as we shall see in this chapter, it was an almost verbatim repetition of declarations made by the firm sixty years earlier, at the time of what historian Amy Staples has called the 'birth of development'.[3] Staples's chronology has been criticised for disregarding the long genealogy of development in the previous centuries. Yet the midpoint of the twentieth century undeniably gave the theories, institutions, and practices of international development a sudden boost. This was true of Nestlé's involvement in development too. The so-called 'Glorious Thirty', the French idiom for the three-decade post-war boom, saw the firm's role on the international development scene flourish.

Nestlé was by no means a newcomer to international affairs in 1945. Upon its creation in 1905, the Nestlé and Anglo-Swiss Condensed Milk Company's factories already spanned Europe and North America, and its management was scattered between Vevey, Cham, Paris, and London. The new firm started producing in 'relatively less-developed countries' promptly thereafter, starting in Australia in 1906 and continuing in Latin America

in the inter-war period.[4] By the firm's own account, this decision was a response to the global rise of 'economic nationalism'; in other terms a means of circumventing prohibitive tariffs.[5] Moreover, in the 1910s Nestlé also established depots in Singapore, Buenos Aires, and Constantinople to distribute its products in markets that did not yet have fully fledged local companies.[6] The first Nestlé company on the African continent was established in Cape Town in 1916, and production started in the Union of South Africa in 1927. In 1947, Nestlé and Anglo-Swiss merged with the Swiss MNE and condiment manufacturer Maggi. Renamed Nestlé Alimentana, the group now boasted an even larger industrial and commercial presence worldwide. From 1952 Nestlé Alimentana was headed by a team of two managing directors (*Administrateurs délégués*), Jean-Constant Corthésy and Enrico Bignami.

Thanks to its past involvement in Swiss agriculture, public health, and humanitarian operations, Nestlé had amassed valuable knowledge. Its management had learnt to engage with public authorities, non-profit organisations, scientific communities, and the media. It had familiarised itself with norms and practices in multiple areas of public policy. It had developed a reliable network of friends and allies. And although its instincts did not always prove right and sometimes ended in fiasco, it had weathered storms thanks to adroit legal and public relations manoeuvres. More than anything else, it had discovered that Nestlé's activities could convincingly pass for contributions to the improvement of living standards and the relief of suffering, and that this could benefit not just the firm's reputation, but also help with its R&D and commercial strategies.

At the close of the Second World War, company executives became determined to replicate this success not just on a country-by-country basis, but also on the emerging scene of international development. Key to the credibility of this enterprise was to make it part of a compelling historical arc. Some light historical reinterpretation was needed. In the 1950s the firm started evoking its overseas expansion of the previous half-century no longer so much as an economic necessity, but rather as a contribution to the advancement of underdeveloped countries and as a model for its forthcoming international ventures. In examining Nestlé's involvement in post-war international development, the second part of this book highlights the ruptures and continuities in the firm's long-term history, and the entanglements between its local and international development ventures. This chapter examines how and why, at the height of Cold War tensions, of the unravelling of the European colonial empires, and of the consolidation of a new generation of international organisations, Nestlé discovered and sought to shape the aid industry.

In order to reinvent itself as an actor of international development, Nestlé needed partners. Some of them were already on hand: Swiss doctors, humanitarians, and politicians and civil servants, especially those gravitating in the orbit of the Swiss Confederation's foreign affairs ministry. Others, such as the international staff and diplomats of the newly created United Nations agencies, were yet to be won to Nestlé's cause. The United Nations Food and Agriculture Organization (FAO) became a valuable interlocutor for the firm. Other United Nations (UN) agencies, such as the United Nations Children's Emergency Fund (UNICEF) proved less cooperative. But Nestlé was undeterred in its resolution to paint itself into the emerging landscape of international development. Its executives quickly learnt to interpret and appropriate its language, and to apply it to Nestlé's agricultural and industrial ventures during the long 1950s.

The cenacle of international organisations

The idea of creating an international agency for food and agriculture, first mooted by the Allies in 1943, came to fruition with the creation of FAO at the Québec conference of October 1945. FAO became a household name in many parts of the world in the 1960s thanks to the organisation's advocacy work, not least the Freedom from Hunger Campaign. But its early years were riddled with difficulties.

In 1945 FAO's Secretariat was deeply influenced by the work of the now-disbanded League of Nations' Mixed Committee on Nutrition, which had been established in Geneva in the mid-1930s. FAO inherited several of the Mixed Committee's former staff members and advisers. FAO founders, and in particular its first Secretary General, the British physiologist John Boyd Orr, believed that the inter-war food system had been plagued by two mutually aggravating phenomena. On the one hand, malnutrition had been rampant worldwide due to inadequate diets and insufficient access to scientific knowledge on nutrition, not just in most of the so-called backward countries but also in the Western world. This had adverse repercussions on the health of populations, and perhaps most concerningly of all, on labour productivity. On the other hand, agricultural overproduction in countries such as the United States, Canada, Argentina, and Australia had led to recurring collapses of commodity prices and the ruin of many farmers. These hardships had stoked the fire of Fascism and Communism, and were a contributing factor to the outbreak of the Second World War. But, international administrators believed, the war had also shown that through diplomacy, it was possible to solve the issues of a dysfunctional global food system. The Combined Food Board, a mechanism set up by the Allies during the war to

source food where it was abundant and ship it to places where it was scarce, was thought to have saved countless lives by preventing famine and widespread malnutrition. Could a similar feat be achieved in times of peace?[7]

FAO thought so. Emboldened by the optimism of the post-war years, in the late 1940s its Secretariat laid out an ambitious reform of the global food and agriculture system. It proposed to set up loans and technical assistance programmes to help less-developped countries boost their agricultural productivity and close the food gap that kept millions malnourished. The Secretariat also proposed to administer a new scheme aimed at buffering future shocks on the global food market. The World Food Board, as this scheme was known, would purchase and stock excess food surpluses when they threatened to saturate the market, thereby preventing the catastrophic collapse of commodity prices that had been so harmful during the interwar period. Should food production drop, on the contrary, the World Food Board would sell its reserves, thus contributing to averting food shortages and price inflation. But these lofty plans were short-lived. While the idea of the World Food Board garnered support in Europe, large food-exporting nations doggedly opposed it, at a time when the prospect of post-war reconstruction promised to buoy the global demand for food for years to come.

Rivalries between new international agencies only made matters worse for FAO.[8] Created in 1943, the wartime United Nations Relief and Rehabilitation Administration (UNRRA) ran a budget of 2 to 4 billion US dollars, sending emergency supplies to Europe after the continent was freed from Nazi occupation.[9] When UNRRA was disbanded in 1947, both FAO and WHO, which was established in 1948, hoped to inherit its leftover funds, estimated at 35 million US dollars.[10] These hopes were dashed when another UN agency, the United Nations Children's Emergency Fund (UNICEF), created in 1946, claimed the spoils of UNRRA's demise. FAO received extra funds after the creation of the United Nations Extended Programme for Technical Assistance (EPTA) in 1950, which earmarked a third of its budget for FAO programmes – a consolation prize of sorts. But until the 1960s, FAO's annual budget never exceeded a modest 20 million US dollars.

After this series of snubs, FAO had little choice but to downsize its ambitions. By the turn of the 1950s, it became clear that its mission was to be limited to largely technical roles. One of its tasks was to act as an information clearing house, collecting and compiling data supplied by member states on a breadth of food-related topics, and publicising them through international reports. This had once been the role of one of FAO's ancestors, the Rome-based International Institute for Agriculture. The headquarters of FAO were, in fact, relocated from Washington to the Eternal City in 1951. FAO was now also in charge of providing support to member states who requested it, by implementing technical assistance programmes designed to

help them modernise their agricultural sector. Under its auspices, tractors, new breeds of cattle, pesticides and fertiliser were brought en masse from the United States to Southern European countries such as Italy; irrigation systems were built; and marshes were drained.[11] But tensions with other UN agencies endured, and this was to prove useful for Nestlé.

Despite inauspicious beginnings, FAO was now an undisputed authority in the field of global food and agricultural statistics. Nestlé officials took notice. Close contacts with FAO, they mused, could be 'very useful in obtaining certain information'.[12] 'Many times', one Nestlé insider wrote to another, there were 'interesting questions discussed' at FAO conferences 'which are not pointed out or even mentioned in the official reports'.[13] This was enough to convince Nestlé officials to get to work. Nestlé's chief executive in Belgium approached FAO delegates and easily obtained invitations to some of their technical meetings. He collected internal reports, and diligently reported back to headquarters.[14] From his base in Stamford, Connecticut, Corthésy planned to do the same with FAO officials in New York.[15] In 1951 A.S., a Nestlé staffer in Vevey, started liaising with the director of FAO's Agriculture section Friedrich Wahlen, whom he knew.[16] Wahlen was a well-known Swiss politician who had been in charge of the country's wartime food policy, and had imposed infamous mandatory cropping programmes in order to achieve food self-sufficiency.[17] Over the next years, A.S. and other Nestlé managers paid regular visits to their FAO contacts in Rome, and vice versa.[18]

Nestlé also gained access to FAO meetings that were normally open only to member state representatives and to organisations that had been granted the status of observer.[19] One of these was Nestlé's old ally, the Save the Children International Union, or 'International Union for Child Welfare' (IUCW) as it was renamed in 1945. The IUCW named C.Z., the head of Nestlé's Service of Scientific and Medical Documentation, as its honorary member and its official delegate at FAO meetings, thus enabling the Nestlé chemical engineer to 'enter the cenacle of international organisations'.[20] In 1955 the Dairy Industries Societies International (DISI), a trade association, became an accredited observer at FAO's Working Party on Dairy Products. A.S., a Nestlé manager, became a member of the DISI delegation to FAO.[21] In 1954, a Nestlé representative was incorporated into the Swiss delegation to FAO.[22]

These efforts gave the firm access to useful and often confidential information.[23] FAO's insights into the markets of 'backward countries', where Nestlé had limited experience, was particularly appreciated.[24] The firm now sourced information on the 'present-day nutritional status and food habits of the natives and availability of raw materials'.[25] It could now also depend on FAO's assessment of the 'political climate' in some developing

countries, and thus avoid 'wasting efforts in countries where governments did not cooperate'.[26] FAO's statistics and forecasts regarding agriculture and commodity trade were also useful. The coffee and cocoa markets had been deeply affected by the war, and the firm adjusted its commercial strategy according to the intelligence it gathered from its FAO sources.[27]

Supplementary feeding programmes

But intelligence-gathering was not the sole purpose of the firm's networking efforts. As it soon became obvious, UN agencies could affect Nestlé's business 'either favourably or unfavourably' through their policy recommendations and programmes.[28] While these recommendations were often 'in harmony with [Nestlé's] position', there was always a risk that they might present 'a certain outlook contrary to [Nestlé's]'.[29] Lobbying UN agencies became a means of mitigating this risk.

In 1950 a local Nestlé representative attended a regional Latin American FAO conference.[30] To his dismay, he learnt from the government delegates present at this meeting that they intended to start distributing imported powdered skimmed milk to children and breastfeeding mothers. This spelt trouble for Nestlé. The company claimed that it had single-handedly created entire commercial dairy sectors, often from scratch, in multiple Latin American countries. Over the previous three decades, it had opened no fewer than nineteen factories in Latin America – in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, Panama, Peru, and Venezuela. True, some consumers in the more remote regions of the continent continued to have little to no access to milk, and could not currently afford Nestlé's products. In these regions, Nestlé recognised, FAO-sponsored skimmed milk could trigger milk consumption and eventually kickstart the demand for commercial products. But in the more affluent, urban centres where Nestlé products were already popular, local branches of the company did not look forward to seeing their hard-won customer base lured away by UN skimmed milk handouts.[31] It was 'evident', one Nestlé staffer reflected, that the objective of the programme was to 'protect the commercial interest of large exporting countries, rather than to defend local interest' – the most likely large exporting country being, by far, the United States.[32]

Although it was mooted at an FAO conference, the idea of mass skimmed milk imports was championed by another United Nations Agency: the United Nations Children's Emergency Fund. Created in 1946, UNICEF had been envisioned by Ludwik Rajchman, its first director and the former director of the League of Nations Health Organisation, as an organisation dedicated to long-term improvements in child health and child protection.

In reality however, faced with the mass deprivation of ravaged post-war Europe, the organisation ditched its transformative ambitions in favour of short-term interventions against famines. That it inherited much of the staff, organisational culture, and funding of the wartime emergency relief agency, UNRRA, only accentuated this emergency focus.[33] The distribution of powdered skimmed milk became a hallmark of UNICEF operations. The organisation purchased dried skimmed milk at concessionary prices, often from United States surpluses. It then distributed the product via supplementary feeding programmes in schools and maternal and child health centres around the world. Between 1947 and 1954 it distributed 233,000 tonnes of powdered skimmed milk, reaching an estimated fifteen million mothers and children.[34] As the situation in Europe improved in the early 1950s, the organisation relocated its efforts to developing regions further afield. In Latin America, imports of skimmed milk from foreign surpluses rose from four thousand tonnes per year before 1939 to seventy-three thousand tonnes in 1952. In the Near and Far East, they rose from five thousand to eighty-three thousand tonnes over the same period.[35] And this was just the beginning. In 1953, the US government donated 100 million pounds worth of skimmed milk to UNICEF.[36] The organisation's feeding programmes were further scaled up in the wake of the approval by the US Congress of the Agricultural Trade Development and Assistance Act, known as Public Law 480, in 1954.[37] In 1957, four to five million children and pregnant and nursing women around the world received regular UNICEF milk rations.[38] Throughout the 1950s, skimmed milk purchases typically represented a quarter of the organisation's budget.[39]

But skimmed milk distribution programmes had their critics. FAO, which possibly held a grudge against its flusher sister organisation, was one of them. FAO considered that milk distribution had made sense in post-war Europe, where it helped improve infant nutrition while at the same time finding outlets for local surpluses. But the situation in the Mediterranean and most tropical countries, where milk was now being shipped with abandon, was different. In these regions, milk was rarely part of the traditional diet (with the exception of South Asia and some pastoral communities of Africa and Asia). While importing milk could improve the nutritional situation of children in emergencies, it could create new problems. As a report by an FAO working group put it in 1954, it was

> unadvisable for foodstuff to arrive suddenly on the market and then for it to disappear just as fast […]. This is particularly true of milk: in the post-war years, one has seen several times the milk consumption of certain groups reach, thanks to temporary imports, a level that could not be maintained once these imports stopped.[40]

Imports of powdered skimmed milk should always be part of a long-term plan, the report continued; one that also supported local milk production, enabling it to gather pace and meet the new demand that imports had helped create. Alas, this was almost never the case, even though UNICEF defended its programmes by claiming that 'in almost all countries where UNICEF has been assisting supplementary feeding programmes, the Governments are planning to continue these programmes from their own resources'.[41]

Nestlé representatives shared FAO's view. As they complained on multiple occasions, UNICEF's powdered milk programme bore the fingerprints of the United States Department of Agriculture (USDA), and was designed to dump American surpluses 'for which there is no outlet'.[42] Moreover, even if UNICEF skimmed milk rations were in theory aimed at school-aged children and breastfeeding mothers, the risk that they might end up on the black market and might be used as an infant food by unsuspecting mothers was real.[43] An exclusive diet of skimmed milk could be harmful to newborns. But Nestlé was not only concerned with the welfare of children. In many cases, UNICEF milk distributions failed to reach the neediest, poorest, and remotest communities, and instead tended to be distributed to better-off urban families.[44] This, company representatives claimed, meant that customers were deserting higher-quality (and more expensive) brands.

Nestlé's grievances did not so much as dent UNICEF's monumental skimmed milk distribution enterprise, which only started winding down when the World Food Programme, created in 1963, took over the task of disposing of unwanted US surpluses through its humanitarian programmes.[45] Nevertheless, the firm hoped that its contacts with FAO would eventually give it a modicum of control over the UN's activities. Whether that was true remained to be seen.

Skimmed milk imports aside, in the 1950s UNICEF became active in another corner of the dairy sector: the building of milk-processing plants. Initially these new factories would reconstitute liquid milk using imported stocks of the dried stuff, and then distribute it through UNICEF and government feeding programmes. But the long-term objective of the 'milk conservation programme', as the project was called, was to create local dairy farms, whose produce could be pasteurised in the new UNICEF-sponsored factories.[46] By creating 'guaranteed outlets' for local milk producers, the project would purportedly not only improve the nutritional health of children, but also give farmers an incentive to convert to dairy farming, and improve rural living standards.[47] Imported UNICEF skimmed milk was now presented as a 'stop-gap' measure, one designed to allow local milk production to emerge. UNICEF, after all, appeared to have heeded the warnings of FAO.

FAO was asked to second agronomic and technical experts to the project. Their task was daunting: it involved modernising existing dairy sectors or creating new ones *ex nihilo*; conducting nutritional and market surveys; training local farmers in cattle-breeding and animal husbandry, fodder production, and farm hygiene; setting up appropriate transportation systems; training milk inspectors and factory workers.[48] The project was first piloted in Greece, Spain, and Southern Italy. By the mid-1950s, UNICEF-sponsored milk factories were in operation in nine European countries.[49] Next on the list were Latin America, Asia, and the Middle East, where modern dairy farming was vanishingly rare. Provisions were made for the construction of over 160 milk-powdering and pasteurising factories across twenty-five countries. Once operational, they were expected to supply milk to four million mothers and children for free or at a very low price.[50]

Once again, Nestlé was not pleased. It continued to view the manufacture and sale of dairy products in countries that did not traditionally consume them as its preserve. After all, it had been a pioneer of the dairy sector in the regions where UNICEF now intended to build rival dairy factories. Nestlé was 'doing its job to the maximum even to the extent of ploughing back its profits for industrial development'.[51] The results spoke for themselves: as a Nestlé executive, J.H.D., put it to Wahlen,

> When we established the first milk factory in Mexico the infant mortality rate was, if I remember rightly, somewhere around 25%; today I think it has dropped to less than half that figure. And our operations in Mexico, as in many other countries, have not been carried out under easy conditions as we had to start by teaching the farmers how to produce milk which would be fit for manufacture into products of the standards we require for all the Nestlé brands.[52]

But the firm was, by now, under no illusion that it could stop the United Nations from doing as it pleased. Nestlé advisers could even see the bright side: 'in the long run', one of them predicted, 'this will…increase the range of our own consumers'.[53] However, giving UNICEF a free rein in dairy production presented risks. First of all, it would popularise 'the use of cheaper products mostly distributed in bulk form, thus inducing the consumer to disregard quality and lose his brand consciousness, which in the long run could only be detrimental to our business'.[54] Next, it could threaten Nestlé's supply chain. In Mexico, Chile, Brazil, Colombia, and Spain, Nestlé predicted that the planned UNICEF factories would likely encroach on its own local milk supplies.[55] As the Nestlé director in Panama summarised it, UNICEF 'is erecting a dehydrating factory in an existing milk district, in competition with the industries of the sector that have facilitated its

development'.[56] Meanwhile in Mexico, Nestlé was set to lose its monopoly over the provision of formula for government-run nutrition programmes to a new UNICEF plant.[57] Nestlé was not alone in criticising UNICEF's manufacturing ventures. The DDT industry, for instance, also complained about the establishment of 'local plants established by UNICEF for the manufacture of insecticide'.[58]

Nestlé executives turned to FAO for support, hoping the organisation would sympathise with their predicament. In 1956 a Nestlé director asked Friedrich Wahlen to 'bring more influence to bear on the UNICEF in the matter of such competitive activities particularly where they also interfere with our hard won source of fresh milk supplies'.[59] The industry, the businessman argued, was happy to cooperate and coordinate with the United Nations in its effort to bring 'the greatest final benefit to the producers and consumers of milk'.[60] But UNICEF factories should 'in no way interfere with established trade for milk products, but on the contrary serve to create a demand for milk where no such demand exists, or to stimulate it where it is now negligible'.[61] FAO officials repeatedly reassured their Nestlé counterparts that they agreed with their views, and petitioned UNICEF on behalf of the firm. But this was in vain. The children's organisation brushed aside the company's concerns.[62] Nestlé, they argued, had no evidence to substantiate its claim that it would lose market share to UNICEF. Moreover, UNICEF was careful to avoid establishing factories in regions where they might compete with the existing industries.

This was an unpleasant outcome for Nestlé. Its past disagreements with the development world had almost always been resolved amicably, or at least their consequences could be largely mitigated. But even Nestlé and its financial clout were no match for UNICEF and its powerful backers in the US government. By a twist of fate, however, the worries of Nestlé officials ultimately proved unfounded. The UNICEF milk conservation project was a failure. Despite 7 million US dollars being spent on a dozen plant projects in India, only one of them was in operation by the end of the 1950s. Of the 160 factories the programme was supposed to build, only a handful ever started production – in Nicaragua, Costa Rica, Guatemala, Iran, Israel, and Turkey. Their production costs vastly outweighed those of importing milk, and they never operated at full capacity. Most of them closed down when UNICEF funding ran out.[63]

Nestlé's efforts to rally UN agencies to its cause paid off in the long run, however. In 1966, the FAO Secretariat launched a platform called the Industry Cooperative Programme (ICP). The ICP's purpose was to improve FAO's communication with the business world, and to harness its financial support. Members of the ICP board were kept informed of FAO's work programme, and were regularly invited to witness the organisation's work

first-hand by taking part in FAO missions. Like other multinational companies, Nestlé became a member of the ICP. From 1972 onward, the head of the Nestlé company in Brazil, O.B., co-chaired the ICP's task force on protein food development, in tandem with M. Ganzin, director of the food policy and nutrition division at FAO.[64] In the 1970s journalists started raising concerns about the ICP. Some viewed it as a symbol of corporate influence in international organisations, and a Trojan Horse enabling corporate access to intelligence about the political and agricultural agenda of member countries. Under growing pressure, the ICP was shut down in 1977.[65]

The audacious entrepreneur

To those who, in the 1920s, had accused it of betraying its home country by moving production abroad, Nestlé had argued that it had had little choice. 'It was not glad-heartedly', an internal report stated in 1940, that the management

> had to make its own life more complicated by creating these factories abroad; which, moreover, necessitated the immobilisation of considerable sums, with all the risks that this comprises […]. This change of industrial policy was genuinely imposed to the Company by a radical modification of the world economy after 1919 (tariffs, exchange rates, contingents…).[66]

Nestlé's encounter with post-war international organisations heralded a sea change in how the firm portrayed its place in the world. Rather than a last resort, its ventures in the developing world were now styled as pioneering, heroic acts. As the Director-General of Nestlé Alimentana put it in 1956, the mission of bringing modern industry to the 'evolving countries' had required considerable patience and sacrifices. The 'audacious entrepreneur who ventured on this path' encountered 'particular problems', and did so with the full knowledge that 'investments in the growing countries are necessarily long-term' and that he 'did not intend to repatriate revenue in the short term'.[67] Transport and communications infrastructures were often rudimentary. Expatriate Nestlé staff had to contend with 'heat, dust, flies, ignorance, milk adulteration, insufficient supply of water, fuel, and equipment, dirty or negligent work, etc.'[68] Nestlé companies were prey to all sorts of predatory behaviours. Governments yielded 'with elegance the sugar and the whip'. Tariffs could be raised or dropped on a whim. The transfer of profits could be hindered by administrative procedures.[69] The Communist threat was ever-present: Nestlé factories were nationalised in Czechoslovakia, Poland, and Cuba (although, in this last case, the firm

obtained financial compensation thanks to the intervention of Swiss diplomats).[70] A few years later, a Nestlé publication entitled *Une entreprise Suisse et les pays en voie de développement. L'expérience Nestlé* further illustrated the reinterpretation of the firm's history in the Global South:

> More than 50 years ago Nestlé built dairy factories in Australia. […] The executives of the firm have always considered that it had an important mission to fulfill, by settling solidly in the regions where it could bring its experience and its techniques. In the field of food, Nestlé was one of the first companies to settle in Latin America and South Africa, and to set foot in the Asian markets.[71]

Participating in the 'evolution of developing regions', it added, was the 'second nature' of those who toiled to expand Nestlé abroad.[72] But, by Nestlé's own admission, helping poorer countries develop was not simply a charitable act: it was also in the firm's self-interest, and in the interest of its home country, Switzerland. How these three sets of concerns – helping other countries, helping Switzerland, and helping itself – overlapped in Nestlé's development discourse is perhaps best described as a complex knot, and one that deserves disentangling. As Max Petitpierre, head of the *Département politique fédéral* (the foreign affairs department of the Swiss Confederation) and later Nestlé chairman, put it in 1956:[73]

> Like any other country, [Switzerland] has a vested interest in the creation of a peaceful international order: it is possible only if misery is erased, if each country can progress to the point of overcoming its own difficulties and of solving its problems. And so, ever since the beginning, we have been associated with all the efforts accomplished on the humanitarian or strictly economic plan in order to help under-developed countries.[74]

Swiss policy-makers understood that neutrality and humanitarianism had advanced Switzerland's interests on the international scene since at least the First World War; they now believed international development would do the same.[75] Despite these declarations, the country's development aid was slow to pick up pace in the 1950s. It averaged 1 million francs per year in the first half of the decade, and 1.5 million francs between 1957 and 1959.[76] Only after the creation of the Technical Cooperation Service in 1961, and the allocation by the Swiss parliament of 60 million francs to cooperation for the period 1961–64, did the Confederation's development agenda truly take off.[77]

Nestlé equated its own ventures in the developing world to Switzerland's noble development mission. 'By virtue of its constitution, its international status as neutral, and by the just reputation of its institutions, culture and

economic structure', the firm argued, 'Switzerland enjoys a unique reputation in the insufficiently-developed countries'.[78] Switzerland did not have an 'imperialist policy'; likewise, Nestlé did not arrive in the developing world as a 'conqueror' lacking 'humility' but instead as a partner:

> The contribution of industrialised countries must always be a simple tonic so that developing countries can deploy by themselves their own strengths, a stake such as the one that allows the young tree to prosper until it is able to withstand by itself the accidents of the weather. But it is precisely for the deployment of these forces that an important role belongs to the industrialist who goes on the ground himself, choses his collaborators and builds, in spite of all the difficulties, with great patience and complete trust in the future, an enterprise that will from then on remain a permanent source of national wealth.[79]

What transpires from these public declarations is that two strong beliefs underpinned both Switzerland's and Nestlé's post-war development agendas. First, the idea that private enterprise had advanced Switzerland's economic interest on the international scene at least since the early modern period, and would continue to do so. Second, the theory that Switzerland had never ruled over a colonial empire, and therefore could never be accused of behaving nefariously in the Global South. It is worth noting that in recent years, historians have largely debunked this tenet. Switzerland's economic cooperation with South Africa's Apartheid regime has cast doubts over the country's historical record when it came to upholding democratic values and rejecting racism.[80] And as the recent exhibitions at the *Musée d'Ethnographie de Genève* 'Mémoires. Genève dans le monde colonial' and 'Kolonial' at the *Landesmuseum* of Zurich have made clear, Switzerland was always deeply involved in European imperialism through its corporate, religious, and scientific networks.[81]

Nestlé's professed commitment to international development was, to sum up, carefully calculated. By declaring that it shared the world view of UN agencies and the Swiss cooperation apparatus, the firm hoped to influence these organisations from within. As we have seen previously, it sometimes did so by lobbying the new decision-making centres of global development: New York, Rome, Geneva. But it also deployed these efforts on the ground within the developing world.

Working on the ground

As Nestlé never tired of reminding its FAO and UNICEF interlocutors in the 1950s, the firm's expansion in Latin America in the previous decades

had been a true success story. By the middle of the century the region contributed 18.6 per cent of the firm's global turnover.[82] Exactly how much work this expansion had required was a favourite topic in the firm's communication with international policy-makers. Prior to Nestlé's arrival on the continent farmers had lacked 'the methods and knowledge in the field of fodder production and cattle raising, cattle care, pasture improvement, insect control, disease prevention and control'. Setting up new dairy sectors had therefore required titanic efforts. The firm had taken on

> the study of dairy breeds, the improvement of cattle health, the study of soil and the improvement of pasture, the question of concentrated fodder for difficult periods such as droughts, floods, grasshopper invasions, the plague of cattle disease, etc., surveillance by farm inspectors and vets, advice and education of farmers (milking, hygienic measures, fights against insects and parasites).[83]

The training of local farmers had been particularly important. Nestlé had distributed 'written instructions and periodic publications' to those who could read. With illiterate people it used images, illustrated calendars, and films.[84] Nestlé had also invited them to visit its factories in order to learn 'why we are so demanding regarding the quality of the milk, why cleaning and disinfection played such a large role'.[85] But as well as education, farmers also lacked capital and access to credit. Here, again, Nestlé had offered solutions. Local Nestlé companies had supplied farmers with seeds, fertilisers, fodder, tools, insecticides. They had organised the import and breeding of resistant and more productive cattle breeds, vaccination campaigns, and the construction of grain silos and stables. In return, the 'beneficiaries' of this 'assistance' reimbursed Nestlé through 'partial compensation through their milk deliveries'. Sometimes, 'subsidies' were also handed out in the form of grants.[86]

But Nestlé's impact on Latin American development had not been limited to agriculture. Because of the low level of qualification of the workforce, the firm's factories were conceived following a low-automation, labour-intensive model. Expatriate technical and managerial staff was key; they followed intensive training courses before being sent to their new duty station.[87] At the same time the firm invested in the training of employees in its manufacturing centres.[88] Overall, the benefits of Nestlé's presence were felt on multiple levels: Nestlé took part in 'the augmentation of revenues and the uplifting of living conditions; it revives local commerce, increases fiscal income and contributes to the equilibrium of the balance of payment of countries on their way towards development'.[89] Photographs of the firm's high-tech facilities on the continent, flaunted in its corporate publications, illustrated its modernising prowess (Figure 4.1).

Figure 4.1 UNILAC Inc. Annual Report: New Factory in Porto Ferreira (Brazil). *Source*: Nestlé Alimentana Company – UNILAC incorporated, 1952 – Allgemeine Erläuterungen Nr 4; SFA E2003-03#197644#156.

And then there was, of course, the positive impacts of Nestlé's products on infant health. 'Since we have been working intensively in countries such as Mexico', Nestlé chairman Edouard Muller affirmed to IUCW Secretary-General Georges Thélin in 1946, 'we have noted an improvement in the material fate of children, and especially a decrease of infant mortality' – a claim the firm rehashed ten years later, when it claimed that it had helped halve infant mortality in the country.[90] But although the firm was to advertise its Latin American accomplishments as evidence of the positive outcomes of its presence in developing regions for the decades to come, the reality was often more nuanced.[91] This was particularly blatant in Nestlé's post-war ventures in Asia and Africa.

Before the Second World War, Nestlé's customer base outside of Europe and the Americas boiled down to a small if loyal following amongst the wealthier urban classes of Africa, Asia, and the Middle East, as well as amongst White European settlers in colonised countries. In 1950 Asia represented only 4.1 per cent of Nestlé's global turnover. The firm did not even report on its African sales.[92] Nestlé's trade flow with the African and Asian markets followed imperial trading channels and their preferential tariffs. Nestlé's British branches supplied the British colonies; the same principle

applied to the Belgian, French, and Portuguese empires. Nestlé's Cape Town factory also supplied the Southern African region. When it could not be met by these imports, demand in the Eastern hemisphere was serviced by regional depots.

The first ones had opened in Singapore and Constantinople – now Istanbul – in the 1910s. By 1950 more depots had been established in a number of African cities, possibly Algiers, Abidjan, Léopoldville, and Mombasa, though the firm's archives remain unclear about these locations.

As international development gathered pace in the 1950s, the Asian and African continents came into focus as new frontiers for Nestlé products. But Nestlé's entrance on these vast untapped markets was somewhat haphazard. The geopolitical turmoil of the Cold War and of decolonisation, local commercial and political considerations, the ambient appeal of international development, and the cultural and scientific shift from breastfeeding to formula in large swathes of what was now commonly termed the developing world, precipitated a hasty adaptation of the firm's strategy in these regions. India and the Ivory Coast epitomised this new phase.

In the mid-1950s officials from India's Ministry of Agriculture asked Nestlé to consider building one, if not more, milk-condensing factories in their country. Thanks to FAO, Nestlé already knew that despite lacking a modern dairy industry, India was a promising market. Dairy products such as cheese and yoghurt were staples of the food culture of many regions of India.[93] UNICEF's milk conservation project there had been one of the only successful ones (which incidentally proved that, despite Nestlé's complaints, it was sometimes the UN that blazed new trails for the corporate sector, and not the other way round). All of this convinced Nestlé that, even though there had previously been 'no postulants from private industry to establish plants' in the country, there was a 'ready market' for its products.[94]

Nestlé directors and experts started roaming the land in search of an appropriate location.[95] As it soon became apparent, the Moga district, in the State of Punjab, fitted the bill. But Nestlé was not prepared to act alone. In 1958 Nestlé's deputee administrator Enrico Bignami approached the head of the *Département politique fédéral*, Max Petitpierre. Once fully operational, Bignami explained to Petitpierre, the Moga facility would manufacture two hundred thousand cases of sweetened condensed milk per year, and could also produce powdered milk and other products. It would 'elevate the general standard of agriculture' and benefit five thousand local farmers. There were considerable obstacles in the way, however:

> The current state of agriculture leaves much to be desired and is progressing in a very adverse natural and human ambiance. […] The initiative will have

> a difficult start, even very difficult if you take into account the fact that it will be necessary to work in a field where practically everything needs to be done and where religious beliefs (cattle being considered as sacred) will thwart even more the implementation of our projects.[96]

In view of these difficulties, Bignami requested the 'sympathy and caring support of the federal Authorities'. This support, he believed, was well deserved. Nestlé's industrial venture in India was in Switzerland's best interest. It 'represented the practical continuation of the help that the Confederation could bring to the agricultural development of India'. It also participated in 'the intensification of exchanges between…Switzerland and the still-free countries of Asia', thus strengthening their political and social stability against the tide of Communism in the region.[97] In such circumstances, the need for public–private cooperation trumped the sacrosanct principle of free enterprise. 'Private enterprise would not be faithful to its own spirit if, to cover its risks, it relied primarily on the help of the State', Nestlé's Director General had once argued. But this help was nevertheless justified 'when the strength of a single enterprise is visibly overwhelmed'.[98] The Swiss government would end up shouldering some of the risks and costs of Nestlé's industrial venture, but this was for a good cause: Nestlé's main objective, 'independently from any intention to make profits', was to help India first and foremost.[99]

Swiss authorities were supportive at first. 'Your company', the Swiss commissioner for the coordination of technical assistance noted, 'has already made an appreciable contribution to the industrialisation of a certain number of countries in Latin America, and we would rejoice if, building on the experience thus acquired, it could deploy and lead to fruition a similar activity in India'.[100] Swiss authorities would 'examine favourably a project of technical assistance which could usefully complement, in the interest of the Indian population, the realisation of Nestlé's industrial operation'.[101] There were conditions, however. Swiss diplomats were worried that 'the simple juxtaposition of private interests and of an action of the Confederation in the domain of technical assistance' could be misinterpreted.[102] It was therefore crucial that the project should have the backing of the Indian government, and that any request for assistance should come directly from Indian authorities, not Nestlé. This condition was met in early 1959, when the Indian government formally approved Nestlé's project and made a formal request for Swiss technical assistance.[103] The cost of the Swiss technical assistance mission in Moga was to be supported jointly by the Indian government and Nestlé.[104] This mission was to focus on improving fodder and livestock. Nestlé, meanwhile, would be responsible for improving stable hygiene, transport, and for setting up industrial manufacturing.[105]

Difficulties soon arose in the implementation of this joint workplan, and the Swiss technical assistance project was eventually abandoned.[106] The building of the Moga factory nevertheless went ahead, and production started in 1961. Although it did not go very far, this collaboration demonstrated the 'advantage of being Swiss' for Nestlé.[107] In a country like India known for imposing stringent rules on multinational corporations and thus deterring foreign direct investment, Nestlé's implantation was a resounding success.[108]

The situation on the African continent was quite different. During the inter-war period the White settler population of South Africa had constituted a large enough clientele to justify the opening of a Nestlé factory in 1927. Algiers was also home to a permanent Nestlé agent since the 1930s. But Nestlé's business outside of North and South Africa was otherwise small enough to be managed remotely by Nestlé directors in Belgium, Great Britain, and France.[109] This changed in the aftermath of the Second World War. To Nestlé directors, little did it matter that in 1944, Charles de Gaulle tried to dispel any notion that France's African colonies were on the verge of becoming independent, stating that it belonged 'to the French nation and to it only to proceed, when the time has come, to the imperial reforms of structure that it shall decide in its sovereignty'.[110] Neither did they care if the British were still unfazed by the winds of change blowing across the continent.[111] On the contrary, Nestlé believed that dramatic changes were on the horizon.

In the mid-1950s several Nestlé executives and technical advisers embarked on extensive tours of the continent. Their travels took them to all bar a few sub-Saharan African countries which they – like most Europeans at the time – referred to by their colonial names: Angola, the Belgian Congo, Cameroun, Chad, Dahomey, the Federation of Rhodesia and Nyasaland, the French Congo, French Guinea, the French Sudan, the Gold Coast, the Ivory Coast, Kenya, Mozambique, Nigeria, Senegal, South Africa, Tanganyika, Togo, Ubangi-Shari, Uganda, and Zanzibar.[112] These tours were eye-opening. The purchasing power of Africans, they observed, was 'constantly rising'.[113] 'There was a time', one Nestlé envoy reported, 'when 5% of Europeans could possess on their own 95% of total purchasing power, whereas 95% of Africans shared 5% of purchasing power; these proportions tend to be in the process of turning around'.[114] The African clientele was therefore the 'clientele of the future', one that needed to be 'conquered'.[115] No more immune to racist prejudice than many Europeans, Nestlé managers were confident that this could be achieved:

> Africans must consume sweetened condensed milk and other of our products just like we managed to do with Muslims and Asians. It must be noted that the Black will have at his disposal, given time, a higher purchasing power than the Muslim, due to his country's greater wealth and above all he is more permeable than the Muslims.[116]

To meet this challenge, the firm's marketing and advertisement strategy needed to be adapted in order to seduce an often illiterate clientele. This meant resorting to 'crowd catchers'[117] such as high strikers, tasting events, public screenings of promotional films, and the creation of smaller and cheaper packaging formats specially for the African market.[118] But Nestlé delegates were also convinced that this clientele was heavily influenced by the 'Europeans', who 'set the tone'.[119] The 'native', they noted, tended more and more to 'dress in the European fashion, wear shoes, and imitate the Europeans in their habits'.[120] For this reason, it was crucial for Nestlé to pamper its European customers. During the 1950s permanent Nestlé representatives slowly started to replace local retailers of Nestlé products. They took residence in Ghana, Nigeria, the Belgian Congo (present-day Democratic Republic of Congo), and the Ivory Coast.[121] Answering to parent companies in France, Great Britain, and Belgium, they were also supported by commercial and scientific advisers from a newly created Export Service service of Nestlé's main operational company in Switzerland, the *Société des Produits Nestlé* S.A (SPN).[122]

Nestlé's intuition about Africa soon proved prescient. In 1957 Nestlé officials learnt that a consortium of US milk manufacturers named Tenco had secured the financial backing of the Rockefeller conglomerate to build an instant coffee factory in the Ivory Coast, the first industrial venture of this kind in sub-Saharan Africa.[123] Negotiations with the Ivorian colonial government were ongoing. Worryingly for Nestlé, the Ivorian authorities were reportedly enthused at the prospect of seeing 'Rockefeller foundations', the philanthropic giant's development arm, tailgate Tenco's arrival.[124]

Nestlé executives feared that allowing Tenco to gain a foothold in the trading block of the French Union (as the French Empire had been renamed in 1946) was bound to set a dangerous precedent. This American onslaught threatened to topple Nestlé's quasi-monopoly on the French instant coffee market.[125] Nestlé needed to react, and quickly. The firm therefore promptly retaliated with a one-two punch. First, Nestlé's representative on the ground undertook to 'discourage the Tenco group from settling in the Ivory Coast, by making its life there impossible'.[126] This did not prove very difficult. The consortium demanded exemptions from import tariffs on equipment and raw material, from export tariffs on the finished product, and from taxes on profits.[127] These conditions, the Nestlé representative argued to Ivorian officials, were excessive. Tenco, he added, had a track record of failing to complete planned manufacturing projects: this had happened in Brazil. To top things off, the Nestlé staffer gloated, the Americans shot themselves in the foot by making themselves 'perfectly dislikeable' within Abidjan's expatriate community.[128] By 1958 Nestlé had 'created in the most useful places a very strong opposition current against the Tenco project'.[129] At the same time, Nestlé hinted to the Ivorian government that it was contemplating

establishing a factory of its own in the Ivory Coast. It boasted that, unlike Tenco, it had started manufacturing instant coffee in Brazil, without asking for government handouts.[130]

This strategy was a success. Within a few months, the negotiations between Tenco and the Ivorian government stalled. But Nestlé's stratagem soon backfired. In 1958 the Ivory Coast attained the status of self-governing territory within the newly created French Community. The country's new government was more determined than ever to see large manufacturing project start. It reminded Nestlé of its vague promises to build an instant coffee factory – promises that Nestlé had only made to undermine Tenco, and had never truly intended to fulfil.

There were several reasons for the Ivorians' appetite for an instant coffee factory. Since the early 1950s coffee had snatched consistently high prices on the global commodity market, and showed no sign of flagging.[131] The Latin American continent wanted a share in this economic boom and was threatening to mount a 'vigorous offensive' against African production.[132] Secondly, instant coffee had a higher added value than raw green coffee beans, and would earn the country handsome export revenues. Next, a Nestlé factory would be a harbinger of the country's industrial modernisation; a powerful argument in its bid for independence. Finally, the local manufacture of Nescafé would stimulate local consumption, and thus create new outlets for the Ivory Coast's growing coffee production. Since Nestlé's cocoa drink Nescao had been commercialised in the Ivory Coast, Ivorian authorities believed, the local consumption of cocoa had increased: a similar effect could be obtained with coffee.[133]

Nestlé was on the back foot. For some time already, it had been under growing pressure to build new factories in several African countries, at the request of local authorities, but had so far been able to dissuade them.[134] Company representatives tried to talk the Ivorians out of the idea. It was costlier, they argued, to produce instant coffee in the Ivory Coast than it was to ship and transform raw coffee beans in Europe and North America, which were the main markets for the final product. The African market for instant coffee, meanwhile, was still tiny. Furthermore, Ivorian hopes that the factory would create job opportunities were exaggerated. Technical difficulties meant that the facility would likely only produce unpackaged, bulk product, and only employ a small number of unskilled workers.[135] Nevermind their past insistence on Nestlé's positive impact on the industrial, technological, economic, and social development of the developing countries, the company's representatives were now desperate to pull out of a possible quagmire in the Ivory Coast.

This was in vain. The Ivorians were unyielding. If Nestlé persisted in its refusal there were, clearly, other bidders. To keep competition at bay,

Nestlé had no choice but to capitulate. Nestlé executives could fume all they wanted. They could sneer that the Ivorians 'wanted this factory like a child wants a toy'.[136] They could complain that the Ivorian government's strongman Félix Houphouët-Boigny, a successful businessman and politician, was 'absolutely impermeable to any question of economic nature'.[137] They could lament the Ivorian government's fixation on the symbolic display of social status and 'prestige'.[138] They could deplore that in Africa,

> in order to be considered a village needs a significant herd or vast plantations, even if they are not tended; similarly, a head of district or tribe must have numerous wives […]. In the eyes of the producers of the Ivory Coast, a factory would represent, on the scale of the territory, the herd, the plantation, the wives.[139]

They could even find solace in the sympathy of French officials, who scoffed at the Ivorians: 'Build a big building, with white walls, a chimney as high as possible that smokes, and all the Africans will be full of joy, saying: Here is our factory, which has no equivalent in Ghana. No one will care that this factory is useless or that it costs money'.[140] They could commiserate with the French that the coveted factory was 'a folly', a sign of the 'unreasoned', and 'inept desire to industrialise Africa at any cost'.[141] What remained was that Nestlé's strategy against Tenco had spectacularly missed its target.

Nestlé now had no choice but to enter negotiations.[142] Problematically, Nestlé's 'entire tactic' against Tenco's proposal had consisted in presenting the exemptions demanded by the Americans as 'scandalous, since the objective was less to obtain these advantages for ourselves than to stop a competitor from having them'.[143] Nestlé now had to backpedal. Managing director of the *Société de produits alimentaires et diététiques* (SOPAD, Nestlé's flagship company in France) and member of the board of Nestlé Alimentana, Pierre Liotard-Vogt, tried to renege on the company's former arguments. Nestlé, he argued, had 'been involved in important commercial exchanges with the Ivory Coast'. It had long intended to open a factory in the country. However, it had only planned to do so 'in a more distant future', once the local market was sufficiently developed. Had it been able to stick to this plan, Nestlé would never have requested a special treatment. The government's insistence on a more immediate construction, however, 'forced' the company to 'request compensations that will allow us to amortise our investments'.[144]

Nestlé and the Ivorian government reached an agreement at the end of 1958. It satisfied most of Nestlé's conditions, including an exemption from export duties over a period of twelve years. After much fretting, and although it 'would have preferred not to engage in production in Africa',[145]

Nestlé was, after all, satisfied. As Liotard-Vogt summarised it, 'we are given a factory for free', even though Nestlé had had to accommodate the government's demand of a 5 per cent share of the ownership of the new company established in the country.[146] Nestlé's factory in Abidjan would give the group 'an excellent basis to give a boost to Nestlé's affairs on the dark continent'.[147] Manufacturing started in the early 1960s. On the Ivorian side, the concessions made to Nestlé were viewed as a necessary trade-off in a grander scheme: the industrial development of the country. As a Member of Parliament put it,

> We must be under no illusion: through the game of the various exonerations we are going to pay a factory whose owner will be Nestlé. On first examination, this is therefore a bad deal for the Territory, but I will say immediately that I will vote for it, without the shadow of an hesitation. […] Do not forget that Nestlé possesses factories in the entire world and that the building of the one in Abidjan will be, for the Ivory Coast, the best publicity that one could wish for.[148]

Conclusions

Throughout the 1950s Nestlé portrayed its post-war expansion in the developing world both as a contribution to international development and as a homage to its Swiss tradition. In Switzerland, according to its official history, the company had trained farmers, equipped farms with modern equipment, created modern transport infrastructure, collaborated with local and national authorities to create frameworks that helped the agricultural sector thrive. It had built factories, employed large numbers of workers, and contributed to the prosperity of the home country. Nevermind that this particular story had not ended particularly well. Nestlé was now promising to do just the same in the developing world.

Nestlé's ventures in the post-war developing world were only just starting. Some of them happened almost by accident, as in the case of the Ivory Coast. But this did nothing to stem the tide of Nestlé factories in the Global South. Between 1960 and 1963 alone, in addition to the Ivory Coast and India, Nestlé started manufacturing in Southern Rhodesia (present-day Zimbabwe), India, Malaysia, Trinidad, and the Philippines.[149] Along the way, Nestlé grew used to leveraging the arguments of international development in pursuit of its global industrial and commercial strategies. Contacts between Nestlé executives worldwide and their counterparts in the international development community allowed the firm to access precious information on the development agendas of governments and international organisations. They enabled the company to adapt its local and global strategies accordingly.

These encounters also prepared Nestlé for more hands-on collaborations with development agencies, and in particular with imperial and international nutrition programmes in Africa.

Notes

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5

The health of children in protein-poor regions

> As surprising as it may be, anyone who has travelled for months or resided for years in tropical Africa or Madagascar has never seen a native baby fed in any other way than at the breast.[1]

Such was the observation made by Jean Legendre, the head of the health service of the French colony of Haute-Volta (present-day Burkina Faso), in 1929.[2] Like other colonial doctors, Legendre was acutely aware of the perils of 'artificial feeding', which, according to him, was 'very fortunately' unknown on the African continent.[3] A few months before, a French tropical medicine journal had reported that an attempt to bottle-feed the 'native newborns' of the Dakar nursery had been a 'complete failure': they had all died.[4] Caution toward artificial feeding in the tropics was not confined to French West Africa. The same year, colonial physician Cicely Williams was posted to the Gold Coast (present-day Ghana), where she started a decades-long career researching and treating infant malnutrition in the British Empire. Williams was to become a famous critic of infant formula. In 1939, she warned that 'the death rate among artificially fed babies is much greater than that among breastfed babies', and that 'misguided propaganda on infant feeding should be punished as the most criminal form of sedition'.[5]

Yet by the late 1950s, on the eve of independence for many African countries, medical opinions on artificial infant feeding had been turned on their heads. Even if they remained cautious of the infectious risks associated with formula, many health experts now believed that it could be beneficial, not harmful, to infant health. As the World Health Organization (WHO) put it in 1958, 'there is no doubt that the consumption of adequate quantities of powdered milk can only benefit the growth and health of children in protein-poor regions'.[6]

What changes occurred in the politics, science, and customs of infant feeding in Africa to trigger such a volte-face? This question prods a delicate colonial past. In the inter-war period, imperial powers became fixated on replacing traditional infant feeding customs by allegedly scientific, civilised Western practices. Medically supervised bottle-feeding and industrially

manufactured infant formula were the archetypes of this Western ideal.[7] Colonial doctors, entrepreneurs and missionaries viewed them as preconditions to a healthy, plentiful workforce. So, to an extent, did African elites. This trend only intensified after the Second World War, when colonial health became instrumental in the defense of the colonial empires against peaking anticolonial sentiment. Infant nutrition became nothing short of an expression of imperial power.

This was a lucky coincidence for Nestlé. The post-war years found the company at grips with new challenges. Despite the launch of Pelargon and other new products in the inter-war years, sweetened condensed milk remained the 'principal pillar' of Nestlé's infant feeding range, and its main commercial use was 'artificial feeding during the first semester of life'.[8] In the past, the product had been appreciated for giving babies a chubby, 'inflated' look. But as the head of Nestlé's Service of Scientific and Medical Documentation, C.Z., noted in 1944, 'today the doctor fights against the "inflation" produced by carbohydrates'.[9] Research now also showed with increasing certainty that bottle-fed babies were more prone to infectious diseases than breastfed babies.[10] Soon it was the turn of 'humanised' formulas, such as Nestlé's Lactogen, to be 'criticised by medical authorities' for their lactose and fat content.[11] Sales of sweetened condensed milk and Lactogen admittedly 'showed a high degree of stability' in the post-war years.[12] But there was no denying that the Nestlé brand was under threat. The firm needed to adapt. On the research and development front, a 'New Products' section was set up within Nestlé Alimentana to coordinate the development of 'new products'.[13] New laboratories were built in La-Tour-De-Peilz in Switzerland and Marysville in the United States.

On the marketing and sales fronts, meanwhile, Nestlé executives sensed that post-war international and colonial health institutions could, if nudged in the right direction, turn into useful allies. The intuition was soon proved right. International medical associations, health organisations, and Africa's colonial health apparatuses offered Nestlé the chance to revamp and expand its global medical strategy.

The International Congress of Paediatrics

At the close of the Second World War Nestlé was held in high repute in Swiss and international paediatric circles. This was in large part thanks to its past medical experiments in Switzerland, to the medical networks developed by its many branches in the industrialised world, and to its collaboration with international organisations such as the Save the Children International Union/International Union for Child Welfare (SCIU/IUCW) and the International Association of Preventive Paediatrics (IAPP). In the

1940s and 1950s the IUCW, in particular, helped the company enter the decision-making spheres of public health in Latin America. But there were clouds on the horizon. In Switzerland, Nestlé's medical alliances were not as exclusive as they once were. Competitors were making strides with their own nutritional products.[14] To make matters worse, following an extensive tour of the American continent in the late 1940s, C.Z. warned that infant nutrition specialists in the United States were becoming increasingly sceptical towards ready-made infant formulas. Instead, they now tended to favour pure, single ingredients that could be mixed according to a recipe elaborated by a physician and tailored to the needs of each individual infant.[15] These American theories were gaining traction worldwide. One could only hope that 'North American influence' on the three hundred foreign medical students who were currently trainees in the United States would not jeopardise Nestlé's global position.[16] The fact that the first post-war International Congress of Paediatrics took place in New York City in 1947 only reinforced these fears. It was, as an internal letter to Nestlé's Deputy Administrator in Stamford put it, 'through friendship and diplomacy that we can avoid a too-categorical posture against our products'.[17]

The International Congresses of Paediatrics became one of the main stages for Nestlé's renewed seduction effort with the medical world. International Congresses of Paediatrics had only been held sporadically since the creation of the International Association of Paediatrics (IAP) in Paris in 1910. But in the post-war period they enjoyed something of a renaissance. From 1947, they were held dutifully every three years in a different European or American city. For a week, they were host to two to three thousand paediatricians from some sixty countries.[18]

Although Nestlé, like other companies, was invited to showcase its products as part of the industrial exhibition held on the fringe of each congress, company representatives considered these booths as having a 'very limited yield'.[19] Nestlé's ambitions were in fact greater. With the congresses, the firm hoped to become the undisputed nutrition brand of paediatricians worldwide.

The first step in Nestlé's plan to achieve global dominance was the funding of the congresses. The Secretary General of the IAP was elected at each congress for the next three years. In New York in 1947 it was no one but Guido Fanconi, Nestlé's longstanding collaborator, who was chosen as new IAP Secretary General and the man in charge of organising the next congress, which was to be held in Zurich in 1950.[20] For Nestlé executives, this was a timely opportunity. If successful, the event, they postulated, would reflect positively not just on Swiss paediatrics but also on the country's industry. The firm proceeded to allocate the considerable sum of 50,000 francs to its organisation. Nestlé's donation vastly outweighed those made

by the Basel chemical companies and by Nestlé's competitor Guigoz, which stood at 20,000 and 10,000 francs respectively.[21] Although less ostentatious in subsequent years, this financial commitment earned the firm the gratitude of congress organisers, and made a 'deep impression' on participants.[22] To thank the firm for its donation of 40,000 crowns at the Copenhagen Congress of 1956, the phrase 'By Courtesy of Nestlé' was included in the programme.[23]

Next came the task of indulging the congress crowds. Social functions, excursions to the countryside, and promotional merchandise were just a few of the things that the company lavishly bestowed upon a curated list of participants at each congress. But another significant share of the company's budget went to the organisation of a more democratic attraction: the Nestlé Lounges. Ideally located in the main congress venues, these spaces welcomed delegates in a pleasant and relaxing atmosphere. Guests were looked after by a team of caterers and 'young women interpreters', while enjoying a complimentary drink of Nescafé, Nestea, or Nescao. Compliments on the Nestlé Lounge flooded in. Doctors appreciated finding 'an oasis of rest and tranquility during their visits and conferences' and being able to 'discuss among themselves while enjoying a "refreshment"'.[24] The lounge was also appreciated for 'creating, around a cup of Nescafé or other beverages, contacts between doctors who do not know each other'.[25] As the French paediatrician Robert Debré, president of the *Centre International de l'Enfance* (*International Centre for Childhood*, CIE) – a small Paris-based organisation that offered training programmes for paediatricians, midwives, and paediatric nurses working in international and colonial contexts – put it in 1956, 'Nestlé [does] a great service to paediatrics by creating bridges between paediatricians from the entire world'.[26] To congress participants and Nestlé organisers during the 1950s, these lounges become nothing less than the 'pinnacle of the exhibition'.[27] While costly, they were considered by company executives as profitable, and their success, 'enormous'.[28] The attractiveness and helpfulness of their staff were meticulously reported on, as were attendance and custom figures.

Besides money and entertainment, networking with up-and-coming paediatricians was another cornerstone of Nestlé's presence. From 1953 onward, the IUCW graciously accepted to delegate Nestlé strategist C.Z. as its official representative at the International Congresses of Paediatrics, much in the same way as it had delegated him to FAO meetings. A chemical engineer by training, C.Z. now enjoyed unfettered access to the scientific conferences and assemblies normally reserved to medical delegates only, and could chat with them as their equal, rather than as a salesman. The heads of medical propaganda from Nestlé branches in the United States, Germany, Great Britain, Belgium, Denmark and the Scandinavian markets,

Spain, France, the Netherlands, Italy, Portugal, and Argentina also flocked to the congresses. For them, it was an occasion to 'become aquainted with important paediatricians from their country in a truly favourable climate'.[29] In 1950, ahead of the Zurich congress, these managers were enrolled on a week-long training course in Vevey in order to be brought up to speed on the firm's global medical strategy, to 'soak up the atmophere of headquarters', and to 'share their experiences'.[30]

Finally, the congresses offered Nestlé a chance to keep a close eye on the competition. Since the end of the war, rivals were 'striving to win over clinicians who teach'.[31] Nestlé's medical delegates therefore carefully observed the stratagems deployed by others to woo paediatricians. At the 1956 Copenhagen congress, one of them noted that Guigoz was making 'unprecedented efforts to create a position for themselves in the hopes of stealing a little of the very privileged one…we currently enjoy'.[32]

By C.Z.'s account, Nestlé's stature at the International Congresses of Paediatrics boded well for the future. One could only be pleased, he mused, at the 'friendship and confidence of paediatricians from all latitudes towards Nestlé and its activities'. This 'interdependence', he continued, was particularly precious 'in the present and the future against an ever more active competition'.[33] But the benefits did not end there. The IAP congresses and some of the child health organisations that gravitated around it, such as the CIE, acquainted Nestlé with the African medical world. Between 1954 and 1956 the French branch of Nestlé donated 3 million francs to the CIE to fund scholarships, some of which benefitted paediatricians bound for the health service in France's African and Asian colonies.[34] It was also at an International Congresses of Paediatrics that Professor Jean Sénécal, head of the paediatric service of the Hospital of Dakar, a leading advisor of the CIE, and one of the most influential paediatricians in Africa, made his first appearance on Nestlé's watch list.[35] He was to become one of Nestlé's main advocates on the continent.

Inter-African nutrition

Until the 1920s European knowledge regarding nutrition in Africa was based on anecdotal and empirical observations.[36] In France's African possessions, colonial authorities took half-hearted measures to prevent famines. These comprised agricultural production surveys, agricultural modernisation programmes, and the instauration of compulsory grain reserves in villages.[37]

Imperial visions changed in the next decade. European administrators became alarmed at the low fertility rates of women and the low productivity of labour in the African colonies. These scourges threatened the profitability

of colonial exploitation. Poor nutrition, they believed, was partly to blame. Competition between the imperial powers, and scrutiny by the League of Nations Health Organisation, also brought home the urgency of reform in colonial health. In the 1930s, officials of the French Ministry of the Colonies closely monitored the nutrition research and policies of other empires.[38] They noted with some consternation France's 'meagre knowledge' and its 'tardiness in comparison with countries such as India or the Dutch Indies, in the field of nutrition'.[39] Something needed to be done. Together with the fight against infectious diseases, nutrition became one of the main symbols of France's preoccupation with the welfare of its colonial subjects.[40]

Against this backdrop, the African infant feeding culture came under scrutiny. An article published in the journal *Africa* in 1934 noted,

> In some regions of French West Africa, part of the low natality is due to the prohibition of sexual intercourse for the entire duration of breastfeeding which lasts over twenty months. Similarly, Muraz cites amongst the causes of falling natality in French Equatorial Africa the absolute prohibition of sexual intercourse from the beginning of pregnancy to weaning, about two and a half years.[41]

Unlike Legendre a few years earlier, colonial doctors now blamed African infant feeding customs for the high infant morbidity and mortality rates on the continent. French tropical medicine regularly featured studies that argued that African infants were suffering from overfeeding. Research conducted at the Dakar 'native hospital' lambasted the excessive 'on-demand' and 'unregimented' nursing of African babies.[42] This habit clashed with European medical guidelines advocating breastfeeding on a fixed scheduled. Researchers also investigated the alleged 'hyper-normal butter proportion' of African women's milk, which was presumed to be a consequence of the overindulgent diet of breastfeeding African mothers.[43] These negative perceptions of African traditions and bodies sparked colonial initiatives to encourage Western-style bottle-feeding.

The powerhouses of these initiatives were the infant and maternal health institutions that had started sprouting up and down the African continent since the late 1910s. The Congo was home to the earliest of such colonial interventions: the Drop of Milk centre of Kisantu opened in 1912, following the model institution first launched in France fifteen years earlier.[44] The Dakar 'maternity for natives' opened in 1919, and the Saint-Louis Drop of Milk in 1933.[45] In 1934, reports indicated that the latter had distributed a presumably impressive 4,059 bottles per month on average, while in the same year 121,561 infant consultations, which systematically included infant feeding advice to mothers, were recorded in Senegal only.[46] Meanwhile, in

the Gold Coast, the Kumasi Child Welfare Centre opened in 1928.[47] As well as offering prenatal and paediatric consultations and hygiene and child-rearing advice, these institutions also dispensed education on infant feeding, and supplied mothers with baby bottles, rubber teats, and formula.[48] Women were also important agents of change. Colonial wives undertook philanthropic work in Drop of Milk centres and other institutions promoting bottle-feeding. African midwives and nurses, trained at colonial medical schools such as the School of Midwifery of Dakar, founded in 1918, preached European standards of hygiene, childcare, and bottle-feeding, as did European women in the Asante region of the Gold Coast.[49]

Modern historical research has brought to light the many problematic aspects of these programmes. First, like many policies that claimed to uplift the African populations, they focused on reforming individuals and especially mothers, rather than questioning and addressing the economic and political drivers of infant mortality – rural impoverishment and the movements of populations triggered by colonial domination, for instance.[50] Next, they promoted a child-feeding model that has since become widely discredited. But their real impact likely remained quite limited, at least initially. As historians of imperialism have shown, there always existed a deep chiasm between Europe's triumphant discourse regarding its knowledge of and contribution to the colonised world on the one hand, and reality on the other. In the field of colonial health, European interventions were sometimes tragically harmful. More often than not, however, they were simply inefficient.[51] Infant nutrition was no exception. Historian Mor Ndao notes, for instance, that child-oriented programmes in Senegal were 'without coherence or true efficiency'.[52] The imperial achievements advertised in official documents must therefore be taken with a pinch of salt. Yet in spite of their limitations, these initiatives paved the way for further imperial and international experiments in the post-war period.

In the 1940s and 1950s freshly established United Nations agencies, FAO, the WHO, and UNICEF in particular, advocated for the improvement of nutrition in the developing world.[53] So did other international and non-governmental organisations such as the IUCW and CIE. A joint FAO–WHO Committee on Nutrition was set up in 1949 to advise member states and other UN agencies on this particular topic.[54] The UN galvanised nutrition research and programmes in Africa, although perhaps not quite in the way it had anticipated.

Although the United Kingdom, France, and Belgium were founding members of the United Nations, they were suspicious of the organisation's intrusion into Europe's imperial affairs, especially in Africa. In 1947, the head of the French colonial health services, Marcel Vaucel, asked the governors of the French empire to report on the work of the colonial health services in their

respective territories. His objective was, he said, to be 'able, during the international meetings in which the French government is represented, to situate France's public health activities in its overseas territories, which are too often unknown abroad, and to respond to criticisms against our colonial health policy'.[55] In the wake of Truman's Point Four Program in 1949, which vastly expanded American aid to the developing world, France feared that United Nations agencies might behave as American Trojan Horses in Africa. France's deputy-delegate at the Trusteeship Council of the United Nations, Henri Laurentie, warned colleagues that giving the United Nations a free rein might undermine the work of French experts and legitimise the 'deleterious propaganda of the United Nations'.[56] But Laurentie believed that there was a way of preventing the UN from 'acting as they pleased', and this consisted of ensuring that France took the lead in scientific and technical assistance in Africa.[57]

The post-war nutrition apparatus of the French Union aimed to do just that. At its top, the Ministry of Overseas France (as the Ministry of the Colonies was renamed in 1946) steered the imperial agenda on all nutrition-related interventions and vetted proposed United Nations contributions in that field. In Marseille, the School of Tropical Medicine of the Health Services of the Army, known as the 'Pharo School', trained colonial physicians in tropical nutrition. On the ground, institutions that already catered to maternal and child health were ramped up. The number of maternities in the French Empire increased from ninety-six in 1925 to seven hundred in 1953, and the number of births given in them from 63,000 to 277,000.[58] As the capital of French West Africa, Dakar was at the vanguard. A Maternal and Child Protection (*Protection maternelle et infantile* – PMI) Centre was created there in 1953.[59] In 1955, the capacity of the paediatric service of the Dakar Central Hospital was increased from thirty to one hundred and twenty beds.[60] Elsewhere in Senegal, a pilot Rural Centre for Family Protection sponsored by the CIE was established in the town of Khombole in 1957. In addition to his teaching activities at the Faculty of Medicine of Dakar, Jean Sénécal held top positions in all these institutions.

New medical institutions completed the picture. The first post-war research team dedicated to the study of nutrition, the *Organisme d'enquête pour l'étude anthropologique des populations indigènes de l'AOF*, was established in 1945 in Dakar.[61] It was folded into an organisation named *Organisme de Recherche sur l'Alimentation et la Nutrition africaines* (ORANA), also based in Dakar, in 1953. Staffed by a half-dozen physicians and pharmacists, as many laboratory technicians, and a squadron of African surveyors, ORANA became French Africa's leading centre for scientific research and experimentation in nutrition.[62] Its ambitious mission was to study nutrition in West Africa, to investigate possible solutions to nutritional diseases, and to educate the masses.[63] Throughout the 1950s

its researchers conducted household, village, and neighbourhood surveys in order to establish economic and nutritional profiles. They conducted clinical examinations, inventories of local foods, and biochemical laboratory analyses on plant and human samples. They processed a huge quantity of data, and produced numerous dietary and agricultural maps (see Figure 5.1). ORANA also hosted trainees who had recently completed their nutrition course at the Pharo School in Marseille.[64]

Due to its limited resources, however, ORANA conducted these research and educational projects in 'pilot' towns and villages chosen as 'statistical samples' for the whole West African region.[65] These localities comprised Dakar; Popenguine, a neighbouring coastal village; Bobo-Dioulasso in Haute-Volta; and Karakoro, in the Ivory Coast.[66] Those villages were thought to be representative of different African nutritional profiles: urban and rural regions; costal and inland regions; and regions where different economic activities dominated: subsistence farming, cash-cropping, herding, fishing.They also illustrated different eco-climatic profiles such as the equatorial forest, where root vegetables such as yams and plantain were diet staples, and the Sahelian regions where cereals such as millet prevailed.[67]

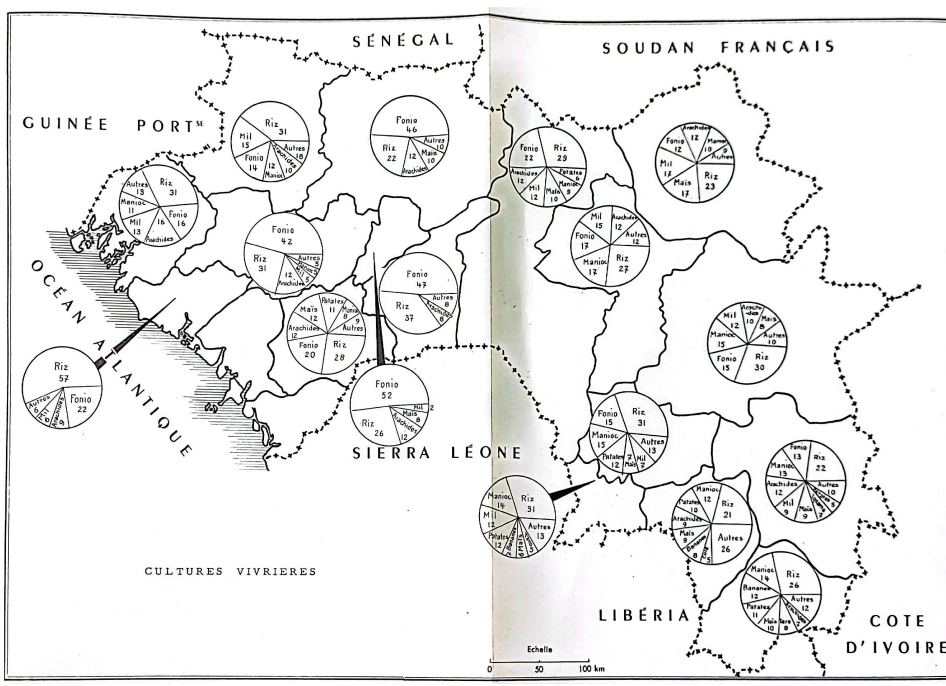

Figure 5.1 Dietary maps of Guinea under French colonial administration. *Source*: Mission démographique de la Guinée, « Habitudes alimentaires », 1954–1956, IMTSSA, 2013ZK005-296.

Such blunt sampling techniques were not unusual. While the desire of ORANA researchers to better comprehend African nutrition was perhaps sincere, their work betrayed the sloppiness of colonial science. It also illustrated its racist undertones, but also featured glimmers of humility. In the mid-1950s ORANA's director, Raymond Arétas, still believed that African populations were prone to famine due to their 'lack of foresight' – an argument that had been flaunted by colonial authorities since the 1920s.[68] But, he further chimed,

> It is in general in order to try and elevate these populations to a living standard close to the Western one that we have put in place a whole system of education. Is this quite logical? And, ultimately, what is this system worth vis-à-vis the African societies. The sociologist had taught us that many times ancestral food habits, if they are not grounded in precise scientific data, are often determined by precise, perfectly logical observed facts.[69]

Further to ORANA, nutrition institutes were established elsewhere in French West Africa, as well as in French Equatorial Africa, Cameroon, Togo, and Madagascar.[70] To sum up, the 'nutrition services' of the French Union were now paraded as a 'complete mechanism of which the French government can justifiably be proud'.[71] The 'time had come', a report of the French colonial health services claimed, 'when the nutritionist physician or pharmacist could at last…guide the choice of the agronomist and of the economist, according to nutritional requirements and not just solvent demand'.[72]

This was not a uniquely French phenomenon. In the 1950s British, Belgian, and Portuguese colonial authorities followed suit. The Child Nutrition Research Unit of the British Medical Council was founded in 1953 in Kampala, and a nutrition outpost of the *Institut pour la recherche scientifique en Afrique centrale* (IRSAC) was created in Lwiro, Congo, in 1956. But imperial powers did not stop there. In order to keep the UN at bay, they became determined to 'further tighten the scientific and technical efforts of the African powers, and, so to speak, to form a common technical fund in Africa'.[73] Setting aside their rivalries, in 1945 Paris and London started discussing the modalities of their scientific cooperation in Africa. In May 1947 an inter-imperial conference on nutrition was held in Paris, and was attended by French, British, and Belgian imperial delegates.[74] In 1950 a new organisation, the Commission for Technical Cooperation in Africa South of the Sahara (CTCA), was founded. Its membership comprised Belgium, France, Portugal, Southern Rhodesia, South Africa, and the United Kingdom.[75]

The CTCA became one of the main centres of scientific and technical expertise on nutrition in Africa. Following the 1947 Paris conference, a

series of 'inter-African nutrition conferences' took place under the CTCA's auspices, first in Dschang (Cameroon) in 1949, then in Fajara (Gambia) in 1952, and in Luanda (Angola) in 1956. Colonial medicine researchers and clinicians from the British, Belgian, French, and Portuguese colonies and from South Africa and Southern Rhodesia shared their latest findings and established joint research programmes. FAO and WHO officials too presented their work. But they were mere guests. The strategy of imperial powers was bearing fruit. UN programmes remained thin on the ground in Africa in the 1950s.[76] What was more, colonial administrations were the ones that controlled their implementation, as was the case with UNICEF skimmed milk distributions in French West Africa, which were run by local schools and by the end of the 1950s targetted a hundred and ten thousand children.[77]

Infants affected by kwashiorkor

The inter-African nutrition conferences covered a breadth of topics, from infectiology to oncology and obstetrics. But malnutrition, and in particular the disease known as kwashiorkor, featured prominently.[78] First described by Williams in the early 1930s, kwashiorkor was a condition thought to be caused by a lack of proteins in the diet of young children. Its telltale signs were retarded growth, hair dyspigmentation, dermatitis, anorexia, and in severe cases fatty liver, oedema, and death. The 1950s marked a turn in the history of the disease. Kwashiorkor became an 'obsession' for the international and imperial agencies working on nutrition in the tropics.[79] In 1952 former French military pharmacist and FAO staffer Marcel Autret and South African physician J.F. Brock published a report, *Kwashiorkor in Africa*, that claimed that the condition was rampant on the continent.[80] The onset of the disease tended to coincide with the point at which breast milk alone becomes insufficient to fulfil a growing baby's nutritional needs, around the age of six months. But the risk increased when the child was 'weaned' (no longer breastfed), usually around the age of two, and transitioned 'abruptly to a diet composed of the ordinary foods of the family, which are mainly starchy foods'.[81] Autret and the leading Guatemalan physician Moisés Behar reached identical conclusions when they toured Latin America two years later.[82]

While a consensus was emerging on the urgency of addressing kwashiorkor, research into it was still in its infancy. As Autret and Brock argued, there were 'many fascinating and important problems associated with kwashiorkor which call for clinical and biochemical research'.[83] This call jolted African nutrition institutes into action. Over the following decade,

observations, studies and reports accumulated on how to diagnose, prevent, and treat kwashiorkor.

It did not take long for the kwashiorkor craze to take hold in French West Africa. Nutrition researchers wanted, first and foremost, to comprehend the prevalence and distribution of the disease. Following a campaign that included the anthropometric measurement of fourteen thousand individuals, blood tests, and dietary surveys, ORANA raised the alarm on the 'previously unsuspected frequency and seriousness of malnutrition'.[84] Further ORANA surveys in the region of Dakar found that between a fifth and a quarter of children showed signs of malnutrition around the time of weaning, and a fifth of those affected presented an acute form of malnutrition.[85] In 1951 the head of the general medicine service of the Central African Hospital and first director of ORANA, André Raoult, reported seventy-two cases of kwashiorkor in his service, forty of which had a fatal outcome.[86] At the Dakar PMI centre, Sénécal reported 596 moderate and 179 serious cases of malnutrition in Dakar over a one-year period.[87] At the paediatric service of the Dakar hospital he and his colleagues set up the clinical and biomedical screening of babies who presented with the characteristic symptoms of kwashiorkor.[88]

While the epidemiology of kwashiorkor was relatively straightforward, its treatment was not. A lot of the research on kwashiorkor, John Nott and other historians have noted, was rooted in assumptions of the superiority of the protein-rich European diet and in the backwardness of non-European diets.[89] A reason for the high incidence of kwashiorkor, according to an organisation that studied the disease, the CIE, was that 'the African woman does not know how to supplement the diet of her child' at the time of weaning.[90] It followed that non-European diets needed to be supplemented. According to Autret and Brock, 'protective' foods against kwashiorkor included animal proteins commonly found in European and North American diets – milk, meat, and fish – and certain vegetal proteins such as beans and groundnuts.[91] The joint FAO–WHO Committee on Nutrition, meanwhile, recommended the 'administration of a diet rich in proteins' to treat the disease. It considered powdered skimmed milk, in particular, as 'the best therapeutic agent'.[92] True to form, UNICEF was a strong advocate for this solution.

But not everyone agreed. WHO experts, in particular, had strong reservations.[93] As Derrick B. Jelliffe, a paediatrician who later became a leading figure of the 1970s Nestlé boycott, argued,

> It is definitely unwise, and frequently disastrous, under the very poor hygienic conditions found in most tropical countries, to attempt the introduction of milk into the infant's diet, unless under special institutional care, in the first six

> months of life, as gastro-enteritis, which is very definitely the most important cause of death in tropical infancy, is very likely to develop.[94]

Against this background, colonial nutrition experts started experimenting with various therapeutic approaches. Between 1952 and 1954 ORANA conducted a medical survey in the pilot village of Popenguine on children aged zero to twelve years. Weekly medical examinations were performed, in addition to weighing and anthropometric measurements. Out of 1,734 children ORANA surveyed, it detected 122 severe and 543 moderate cases of kwashiorkor, establishing the incidence of the condition at 38 per cent. This study was followed by a supplementary feeding programme using dried skimmed milk supplied by UNICEF and a French company.[95] The experiment found that the introduction of dried skimmed milk reduced kwashiorkor-related mortality and the average failure to thrive. Instead of milk, some groups of patients received other foods or treatments, including shark liver oil and antiparasitic drugs.[96] The Popenguine experiment served as a model for further studies in the Ivory Coast, Haute-Volta, and Dakar.[97] Meanwhile, at the service of general medicine of the Dakar Central Hospital, kwashiorkor mortality rates were brought down from 80 to 60 per cent in 1951 thanks to the administration of a hyperproteic diet which included 'American skimmed milk, tinned sardines and raw meat'.[98] A few years later, another therapeutic experiment was conducted by Sénécal on 179 children aged one to four years, who had been admitted to the paediatric service of the hospital for moderate malnutrition. The treatment consisted of two daily thirty-gramme portions of millet paps fortified with peanut meal and sugar. A control group was fed a non-fortified millet pap. 'The deterioration of 16 out of 26 malnutrition cases fed with the ordinary millet pap', Sénécal noted, demonstrated 'the interest of supplementary protein diet'.[99]

The education of mothers was considered another crucial component of the successful treatment of malnutrition. As Sénécal reported, when a malnourished child was admitted into hospital, their mother was usually admitted with them, and as a result she was 'idle for several days' and removed from her familiar environment. This caused a 'psychological shock' which Sénécal considered a 'perfectly chosen moment' to teach her hygienic bottle-feeding practices. Mothers were taught to 'prepare a bottle, to dose the quantity of milk, to give it to the child'. They were also given therapeutic pap preparations and trained to prepare them at home. Once discharged from hospital, they 'had to be able to continue artificial feeding under regular monitoring'.[100] At the Dakar PMI centre, mothers of malnourished children received sealed bottles of sterilised water and powdered milk, and were instructed to boil the teat and prepare the bottle just before use.[101]

Results of these therapeutic experiments were shared amongst imperial nutrition experts at CTCA conferences. This laid the ground for subsequent inter-imperial collaborations between colonial physicians. In the second half of the 1950s, Professor R.F.A. Dean of the Kampala nutrition institute and Sénécal conducted a 'longitudinal study on the growth and psycho-motor development of the African child'.[102] These experiments opened the door to the participation of the food industry in imperial and international nutrition research.

Even though it had started manufacturing products in Cape Town in 1927, at the end of the Second World War Nestlé still considered Africa an all but non-existent market. This was about to change. Following a series of tours in the 1950s, Nestlé managers became convinced that Africa could become 'a great market for infant foods and dietetic and therapeutic specialties'.[103] Although sales had until then been almost exclusively driven by Africa's White European minority, time had 'now come to *focus the effort on the native*'.[104] African mothers were undoubtedly 'great breastfeeders'; however, like Europeans, they were also attracted to artificial infant feeding.[105] Thanks to the 'progress of hygiene' and the 'evolution of the native', African mothers were 'driven inexorably' towards industrial milks, an evolution that was 'desired and wanted' by colonial doctors.[106] Africa therefore constituted 'a potential market that we must win'.[107]

For a while, Nestlé executives hoped that Africa could give sweetened condensed milk a new lease of life. As one French colonial doctor claimed in a medical journal, the product was giving 'the best results' in the French Union.[108] In the mid-1950s, the product was still Nestlé's best-selling product on the continent.[109] But as Nestlé medical delegates discovered while visiting the African markets, the majority of sweetened condensed milk was in fact used in cooking. Only an estimated 15 per cent of total sales were used in infant feeding. This was only thanks to a dwindling number of African doctors and midwives who still prescribed it to mothers.[110] But even these would eventually succumb to the 'influence of the European doctor', who 'modelled the African doctor in his own image'.[111] Nestlé realised that even if it did everything it could to 'slow down the disaffection', the viewpoint of European medicine, now opposed to sweetened condensed milk as an infant food, would inevitably triumph.[112] It was therefore necessary to focus Nestlé's medical propaganda efforts on other products.

International and imperial preoccupations with kwashiorkor were a perfect opportunity for the firm. From 1950 Nestlé managers closely monitored international debates on the disease.[113] The supposed endemicity of protein malnutrition and kwashiorkor, which they understood was 'one of the most urgent problems to solve' in Africa, became an important sales argument.[114] Nestlé medical delegates channelled the WHO's arguments against powdered skimmed milk. 'If dried skimmed milk, distributed by official and

unofficial organisations, can render useful services as "protein supplies" in the nutrition of preschool and school children', one Nestlé representative argued, 'it is wholly inappropriate for infant feeding'.[115] It was exactly for that reason, Nestlé directors noted, that in French West Africa the sale of dried skimmed milk was prohibited by law, something that Nestlé intended to do its 'utmost to defend'.[116] Nestlé's dietetic products were 'far superior to skimmed milk in the feeding of infants affected by protein malnutrition'.[117] It was precisely these 'good "medicine-foods"' that Nestlé was now determined to market in Africa.[118]

In 1953 Nestlé Alimentana organised a colloquium on 'amino-acids' at the Nestlé Hospital in Lausanne. Two physicians, both of whom were on Nestlé's payroll, gave presentations on the 'relationship between amino-acids and kwashiorkor', and on the uses of Nesmida, Nestlé's new calcium caseinate-fortified powdered skimmed milk, in the tropics.[119] Following tours of Africa, Nestlé delegates became convinced that Pelargon, Nestlé's powdered acidified milk, and Eledon, Nestlé's powdered buttermilk, should be marketed as 'protein-rich foods for infants affected by kwashiorkor'.[120] Arobon, an anti-diarrheic carob-based powder and a recent addition to Nestlé's dietetic range, also presented great 'commercial possibilities' in Africa due to the frequency of gastro-enteritis.[121]

But rebranding Nestlé's products as malnutrition treatments was just the first step. In order to be effective, the new tropical focus of the firm's medical propaganda needed to be promoted on the ground. This, it soon became clear, was the crux of the problem. As Nestlé executives in Vevey noted, headquarters had the global vision, the 'scientific knowledge, faith, patience, courage' required for the creation and marketing of new products.[122] Local branches abroad, by contrast, tended to show little interest for innovation, and even to resist it. Headquarters therefore had to 'advise, give an impulsion, and even harass' local companies in order to ensure they toed the line.[123] Furthermore, until 1950 Nestlé's South African company was the only one on the continent to enjoy a fully fledged medical service. Yet the development of sales in the rest of Africa rested on the building of local medical networks that included 'maternities, dispensaries, and consultations'.[124] In the following decade the firm posted permanent medical advisors to its branches and depots in the Belgian Congo, British East Africa, and North Africa.[125]

Vevey's plan soon bore fruit. In order to 'educate the doctor', the new medical delegates deployed techniques that had been tried and tested in Switzerland and elsewhere. The distribution of Nestlé samples and 'advice to mothers' brochures was one of them. Some of these brochures were text-free, in order to reach illiterate mothers; others were translated into local languages.[126] Next, clinical trials were paramount if the firm was to secure

the 'total confidence' of doctors and the 'regular consumption' of Nestlé products in hospitals.[127] They would foster a 'prescription reflex'.[128] Nestlé's medical delegates tirelessly toured African hospitals and presented Nesmida, Pélargon, and Eledon as treatments for malnutrition and kwashiorkor. Arobon was touted as a prophylactic and therapeutic solution to dyspepsia and diarrhoea.[129] Primed by the international and trans-imperial enthusiasm for kwashiorkor research, colonial physicians were easily swayed. During a six-week tour of the French colonial territories, a Nestlé medical representative visited one hundred and twelve doctors, sixty hospital services, fifty pharmacists, and organised some forty clinical experiments.[130] Other medical representatives reported similar successes in British West Africa, the Belgian colonies, and Southern Africa.[131]

As a protein-enriched milk, Nesmida was the poster child of Nestlé's kwashiorkor experiments. In 1954, Jean Sénécal conducted an experiment on forty malnourished children at the paediatric service of the Dakar hospital using supplies donated by Nestlé.[132] As a Nestlé delegate reported, the results were 'spectacular'. Sénécal found that 'under its action, appetite reappears, oedemas melt in five to six days, the biological syndrome improves, hepatic lesions regress, mortality decreases from 80% to 25%'.[133] More promisingly still, Sénécal found Nesmida superior to rival brands. But the use of Nesmida was restricted to specific medical circumstances. Pelargon and Eledon, on the other hand, had much broader appeal in both hospital and home settings. Unlike powdered skimmed milk, Pelargon had the advantage of not provoking dyspepsia in babies.[134] Nestlé delegates commissioned multiple trials on these products. Although some physicians found that it caused a loss of appetite and intestinal disorders, Nestlé representatives were satisfied that all those who used Pelargon were 'enthusiastic'.[135]

Due to the silence of the archives, the viewpoint of mothers and children on these public–private nutrition experiments in the late colonial period can unfortunately not be addressed here. For the firm, on the other hand, they were clearly positive. From a reputational viewpoint, the campaign was a success. At a CTCA nutrition conference, researchers reported results from malnutrition therapy and supplemental feeding experiments, several of which explicitly referred to Nesmida and other Nestlé products.[136] Scientific publications, such as the 1956 article 'Etude dans le Service de Pédiatrie de l'Hôpital civil de Fort de France sur l'Arobon et le Pelargon Nestlé' in *Médecine d'Afrique Noire*, gave the products a new scientific veneer in the tropics.[137] The firm advertised its products in medical journals, emphasising their use in 'tropical countries' where 'protein-rich diets' were particularly indicated (Figure 5.2). Through its collaboration with maternities, dispensaries, and consultations, Nestlé was also gaining better access to the 'native clientele'.[138]

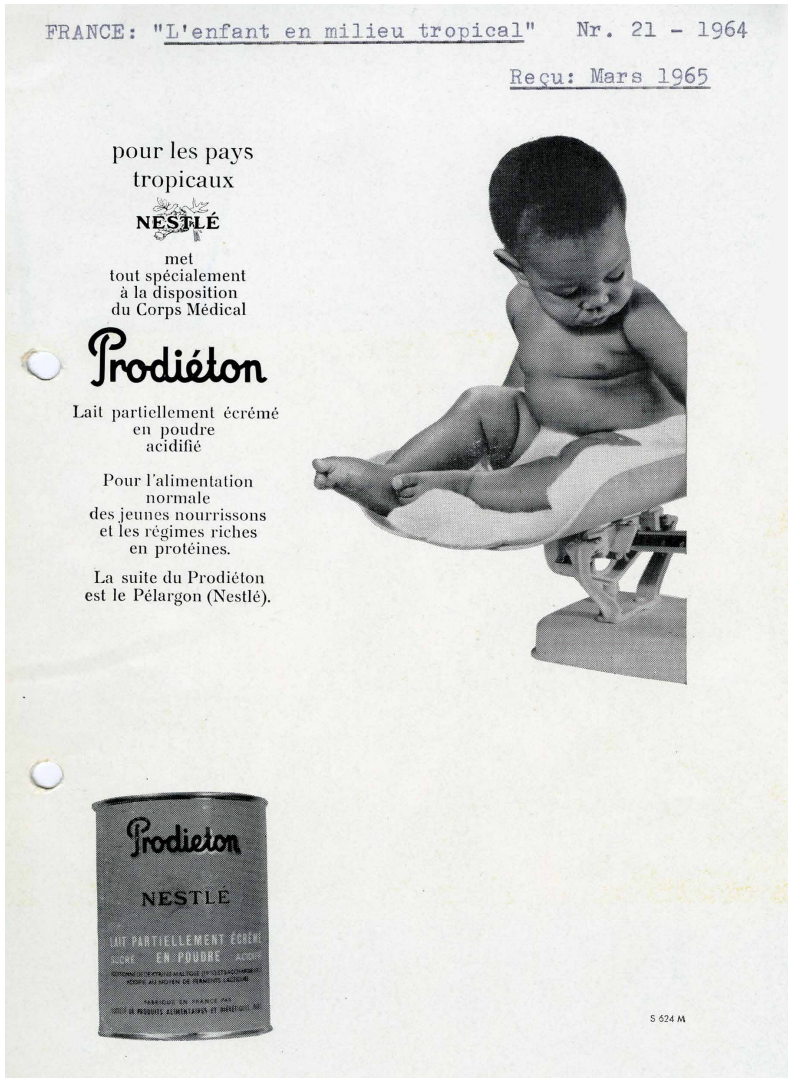

Figure 5.2 Prodiéton advert in the *Bulletin médical de l'Afrique occidentale française*, 1961, Vol. 6, No. 3. *Source*: Archives historiques Nestlé, Vevey.

There was progress on the commercial front too. The use of 'dietary milk' was reportedly on the rise at the Dakar hospital in the mid-1950s.[139] Thanks to the 'education of the doctor', 'advice for native mothers' brochures, and word of mouth, African mothers had started buying Nestlé products 'spontaneously'.[140] As delegates reported, sales of Nestlé's dietetic products started progressing.[141] From 1955 to 1957, African sales of Arobon and

Eledon doubled, though only to an admittedly modest nine thousand and two thousand tins respectively. For Pelargon, sales progressed at the slower rate of 8 per cent over the same period, reaching fifty-four thousand in 1957.[142]

High-protein foods

The kwashiorkor obsession did more than simply enable UNICEF and Nestlé to repackage existing products as treatments for the disease. In 1953 the Joint FAO–WHO Committee on Nutrition started investigating means of preventing, rather than belatedly treating, protein malnutrition. Part of the solution, the Joint Committee on Nutrition believed, resided in agricultural and socio-economic adjustments rather than medical measures. These adjustments consisted in increasing the production and promoting the consumption of foods that had a 'preventive action' against the disease, namely milk, meat, eggs, fish, legumes, soy beans, and peanuts.[143]

As consultant for WHO, Jelliffe also noted that associations of traditional foods such as 'burghul and hummus', which were 'used as a food for infant from the age of four months' in Syria and Lebanon, showed some promise as a means of preventing kwashiorkor. 'Research into foods of this type', he argued, 'is a matter of great urgency'.[144] His call was heeded by UN agencies. In 1955, a new team of experts, the Protein Advisory Group (PAG), was established by WHO with a mandate to advise UN agencies on the so-called protein gap and kwashiorkor.[145] While acknowledging the usefulness of skimmed milk for the treatment of certain cases of kwashiorkor, PAG advocated for locally sourced, high-protein foods to prevent and treat these ailments. UNICEF and the Rockefeller Foundation decided to fund a special task force within the PAG, the Committee on Protein Malnutrition, to pursue such research on 'protein-rich foods'.[146] In short, there was a broad consensus within the UN family that kwashiorkor prevention should rely on foods that were available cheaply and locally, and that could be prepared 'either by the family, or on the level of the village'.[147]

Yet this vision was rapidly supplanted by an altogether different approach to the prevention of malnutrition: the development of industrially manufactured high-protein foods.[148] In Guatemala, the *Instituto de Nutrición de Centro América y Panamá* – Institute of Nutrition of Central America and Panama (INCAP) was wary of the tide of UNICEF milk. Its director, Nevin Scrimshaw, and his colleague Moisés Behar advocated for the development of 'indigenous foods or food processing projects'.[149] With funding from the Rockefeller Foundation, INCAP backed the development of an industrially processed flour based on cotton seeds. The result was Incaparina, a product

that was launched as a nutritional supplement for children in Guatemala in the early 1960s. Elsewhere, in Israel, organic chemist Bernhard Frankel crafted a meat substitute using fungi- and plant-based ingredients, which he hoped would remedy the shortage of animal proteins that struck his fellow countrymen and women.[150] In Africa, meanwhile, French colonial authorities shared INCAP's view that UNICEF milk 'could not be considered as a mass solution' to malnutrition.[151] There existed alternatives which, they believed, made perfect sense both from the public health and the economic perspective. As one report of the French colonial health services put it, 'Africa must feed Africa. We need to supply the native with cheap proteins, that is to say obtained on an industrial scale locally'.[152]

As well as improving the nutritional health of African people, the French thought that the ideal nutritional programme should also make 'better use of the products or by-products of agriculture' in the colonies.[153] Following extractive processes, the fishing and groundnut industries of West Africa were left with cumbersome refuse: fish and peanut meal respectively. Although some of this output was shipped to Europe where it was used as animal feed, there had to be a better 'outlet' for it.[154] More precisely, this waste, French colonial administrators believed, had to be repurposed for human nutrition. In outlining this plan, the French unknowingly echoed age-old scientific anxieties over the management and reduction of waste.[155]

There were of course major obstacles in the way; these products were unsuitable for human consumption due to their high oil content, the presence of solvents in them, and the pathogens they harboured. However, one French study suggested that these issues could be solved thanks to new purifying processes.[156] In view of these findings, the French considered that there was no time to lose. High-protein food research was quickly becoming a crowded field. FAO, in particular, was 'encouraging the private industry to prepare perfected products suitable for human consumption'.[157] France had to act quickly, 'without waiting for a foreign organisation to offer, for experimentation, foods that the French Union or the territories themselves are able to supply'.[158]

ORANA followed suit and set to work on the development of high-protein foods. It harnessed the help of FAO experts and of 'French, Moroccan, and other companies interested in the introduction of fish flour in West Africa and also in the installation of local fish processing factories'.[159] The objective was to coordinate the engineering and experimentation of new products based on the flours obtained from fish and peanut meal. The French company Ultrafine was particularly quick. Before long, its first peanut-based biscuit prototype, Farnoix, was ready for trial, and ORANA organised 'a first experiment on the natives of its experimental village in Popenguine' with these biscuits.[160] Using a stock of thirty-five kilogrammes of Farnoix,

the test involved 165 children aged two to seven years for a period of two weeks.[161] Researchers noted that distributions were very popular with children, who considered the biscuits as a 'treat' and 'came back the following week asking for more'.[162] Mothers were also instructed to crumble the biscuit into the paps of children, and to use it to fortify the 'sauce' that accompanied the ubiquitous starchy dough that constituted the base of the family meal (fufu).[163] Some families accepted to receive ORANA's African surveyors in their homes, where the preparation and consumption of these fortified meals was carefully observed. Similar products were developed by other French companies (Petersen, Olyda, Sian, Compagnie Franco-Indochinoise, Lesieur-Afrique, and Moulins Senterac), and tested in ORANA's 'experimental villages'.[164]

For firms, the primary objective of these tests was not so much to prove their nutritive value as to determine their palatability for future commercialisation. As ORANA researchers argued, only longer, larger-scale experiments could demonstrate the efficiency of the new high-protein foods against malnutrition.[165] But such experiments would have required the continued cooperation of the private sector, and it was not forthcoming. Following the first round of ORANA tests on Farnoix, the organisation asked the manufacturer to supply it with 400 kilogrammes of biscuits, in order to conduct a three-month study on one hundred children and compare the results against a control group.[166] Ultrafine declined to participate. Astonishingly, this did not stop the company from boasting, in its commercial leaflets, that it had demonstrated the 'convincing effects' of its products on 'external signs of health', and that 'the research undertaken during more than three years by the company Ultrafine has allowed to find final solutions to the old issue of the use of peanut meal in human nutrition'.[167]

On a visit to the Nestlé headquarters in 1954, the head of the FAO nutrition division, Wallace Aykroyd, informed the company's top medical strategists about his organisation's ongoing work on high-protein foods. In many tropical countries, one of the obstacles to the human consumption of local vegetal proteins was that they were inedible unless they were cooked or otherwise processed. FAO, he explained, wished to 'give more emphasis to the household preparation and education of the natives to the use of these products without much industrial pre-treatment'.[168] 'The best work that the Nestlé laboratories could do', FAO nutrition expert Marcel Autret added during another meeting with Nestlé, 'would be to study the possible associations, the techniques applicable on the scale of the family, to hydrolyse raw proteins and make them edible', and to 'find simple formulas of pap preparations usable in the family setting' – much like burghul and hummus in the Middle East.[169] FAO and the governments of developing countries also broached the manufacture of milk 'ersatzs', such as soy milk, as another

worthwhile contribution that Nestlé could make to their high-protein food work.[170]

Nestlé operatives were cautious. Such projects, as they candidly put it, 'may not be very interesting from the monetary angle', and 'little would be gained' by participating in them.[171] After all, the main objective of these projects was to distribute cheaply produced local foods at low or no cost to poor households. Yet even if 'this venture departs in one way from the traditional Nestlé objective, which is to make high class branded products', Nestlé officials decided that 'cooperation with FAO, WHO and UNICEF should be sought as this may also prove beneficial in other respects'.[172] It would be particularly the case if such cooperation enabled Nestlé to nudge FAO's high-protein food research agenda towards a more industrial scheme.

Nestlé had been in the confectionary business since first partnering and later acquiring the chocolatier business Peter, Cailler, Kohler, in 1905 and 1927 respectively. In 1947 the Nestlé and Anglo-Swiss Condensed Milk Company became Nestlé Alimentana after acquiring Maggi, the Swiss manufacturer of dehydrated soups and stocks and the eponimous condiment, Maggi Seasoning. Thanks to intelligence they gathered from FAO and their men on the ground, Vevey officials knew that competitors and nutrition institutes around the world were currently toiling on the development of industrial high-protein biscuits and flours, two products that were not entirely dissimilar to Peter, Cailler, Kohler's and Maggi's.[173] Nestlé's engineering of high-protein industrial foods, the company's directors decided, should therefore 'be tied up with the whole project of introducing Maggi soups' in developing countries.[174] The matter was settled. Nestlé tasked its New Products section with coordinating a research programme into high-protein foods.[175] The firm's laboratories started work on 'the analysis of raw and processed materials, as well as in research about processing'.[176] High-protein food prototypes were developed simultaneously by Vevey and by a food engineer employed by Nestlé's South African branch.[177] The objective of the project was to 'manufacture and sell high-protein soups to natives in South Africa', and 'serve as a model for similar schemes in other countries'.[178]

Despite their previous reservations toward high-technology food processing, FAO officials were delighted. Autret believed that the manufacture of such foods by private industry would be useful to 'governments and hygiene organisations, official or unofficial'.[179] And, Aykroyd indicated somewhat conspiratorially, the firm could count on FAO to secure the 'advice and help of local nutrition experts to find a formula which would be acceptable to the natives'.[180] FAO's advice to Nestlé was identical to the advice ORANA gave candidates to the manufacture of high-protein foods. Due to their abundance in most developing regions, peanut and fish meal

had to be their ingredients of choice. By the mid-1950s, Nestlé had elaborated several prototypes of high-protein biscuits and soups based on these products.

A first round of tests was organised at FAO's headquarters in Rome in 1955 in order to assess the 'aspect, taste, and composition' of the products.[181] Some thirty FAO staffers, two-thirds of whom had resided in Africa for periods ranging from 'six to twenty years', took part in these tasting sessions. Their feedback was largely negative. The biscuits were 'bland and grainy in texture'; the soups, 'hard to digest'.[182] Bemusingly, Autret did not consider this result as a reason not to attempt the introduction of the products in Africa. Africans, he predicted, would appreciate their marked peanut and fish taste, and they would likely accept the soups as a substitute for the cereal paps usually fed to children. Digestibility, he added, might not be such an issue for Africans and their 'perhaps less delicate stomachs'. However 'mediocre' and despite their 'poor biological value', the biscuits would be considered as 'treats'.[183]

Regardless of their shortcomings, in the second half of the 1950s Nestlé's high-protein food prototypes were ready for experimentation in field conditions.[184] Protocols for the study of dietary supplements and their effects on child growth and malnutrition were already in place in many nutrition institutes in Africa. At the Medical Research Council's Group for Research in Infantile Malnutrition in Kampala, Dr R.F.A. Dean had conducted a study on school children by feeding them vitamin cocktails and biscuits prepared in hospital using 'wheat and maize flours, groundnuts, cottonseed oil and sugar', all of which were 'obtainable locally' and 'remarkably cheap'.[185] Other children were given a placebo, while a control group was given no supplement at all.

To convince nutrition experts to include Nestlé's new products in their already busy research agenda, the firm could count on Autret's support. As the latter told Dr R.F.A Dean by way of introduction, 'the present interest of Nestlé is the same as ours'.[186] Nestlé proceeded to hand out samples to Dean and to his colleagues in the other main African nutrition research centres: Sénécal's paediatric service in Dakar; Prof. DeMaeyer's IRSAC in Lwiro; and public hospitals and private charities in Yaoundé, Léopoldville, and elsewhere.[187] The operation was a success. Sénécal tested three types of soups and four types of biscuits on the children of his service. They were all 'well accepted and tolerated'. Children were particularly fond of 'biscuits, receiving them as sweets' and 'awaiting impatiently the time of distribution'. Digestive tolerance was 'excellent'.[188] As C.Z., the head of the Service of Scientific and Medical Documentation of Nestlé, observed while on one of his many tours,

> Biscuits were handed before us to small natives affected by kwashiorkor and also to several adults. This 'test of acceptability' has shown that the taste and texture are highly appreciated.[189]

Further plans were made to experiment the biscuits on 'a great group of children' at the Dakar PMI centre and the ORANA pilot village of Popenguine, to 'see their influence on weight, height, and the disappearance of kwashiorkor', although no records subsist of their implementation.[190]

Like Ultrafine, evidence of the prophylactic effect of Nestlé's high-protein foods on kwashiorkor was slim. The firm's work in this domain was nevertheless well publicised in medical circles. Sénécal presented the results of his own tests at CTCA's 1956 inter-African nutrition conference in Luanda.[191] In 1960, a team of Nestlé food chemists and engineers published a series of medical articles on 'Protein malnutrition in developing countries' and in particular the 'deterioration of amino acids in the preparation of protein-rich biscuits' in the reputable *Annales de la nutrition et de l'alimentation*.[192]

Research into protein malnutrition had come a long way by the end of the 1950s. Corporations and nutrition institutes had elaborated products that they believed to be nutritionally sound, often using high-end, patented industrial methods. In the early 1960s, WHO declared that given the success of Incaparina, 'nothing stops today's science from creating further products able at little cost to fill the lacunae of the diet of under-fed peoples, and thus protect their health'.[193] In the mid-1950s, Ultrafine told French colonial authorities that in view of the 'very encouraging results' it had obtained so far in Africa, it was considering opening 'a station for the economic production of foods very rich in proteins' in Dakar.[194]

But these grand plans were short-lived. As it soon became clear, local manufacture was to prove thornier than anticipated. As one ORANA researcher noted in 1955, the processing of protein foods required state-of-the-art industrial equipment that was 'a luxury solution', and was incompatible with the 'industrial level of French West Africa'.[195] On the global scale, only a few high-protein food projects led to the much-anticipated local manufacture of these foods, Incaparina being one of them. Although records of these projects are hard to come by, some sources suggests that only twenty high-protein food factories were in operation in developing countries by the end of the 1960s.[196] Enthusiasm for high-tech, high-protein foods started to wane.

A similar fate awaited Nestlé's own high-protein food project. In the mid-1950s Nestlé told FAO and French officials that it was now considering implanting a high-protein food factory in Dakar.[197] This, Autret hoped, would potentially lead to the production of high-protein foods 'on a commercial scale and on a non-profit basis for the use of underdeveloped

areas'.[198] These hopes proved unfounded. Privately, Nestlé officials had always considered that manufacturing in developing countries without 'guarantees from public officials, who would be in charge of the diffusion, at their own cost, of the manufactured products' was out of the question.[199] By the late 1950s, Nestlé's high-protein food project was quietly dropped.

In the absence of records on the exact circumstances of its anticlimactic ending, one may wonder whether Nestlé executives knew all along that high-protein foods were bound to fail; whether indeed, they only ever saw them as a way of familiarising the African public with the concept of convenience foods such as Maggi aroma, which later became hugely popular in Africa. Yet the firm's work on high-protein foods mobilised sizeable financial, personnel, and time resources. While they may not have had much faith in the commercial viability of high-protein foods, Nestlé executives probably viewed their development as a way of reasserting Nestlé's relevance in the field of nutritional research, and of keeping the competition at bay.

Conclusions

The protein gap agenda has been criticised, with hindsight, as a set of 'high-tech projects' based on 'research that is intellectually exciting to the investigator' rather than on 'ostensible and well-publicised humanitarian goals'.[200] In 1959 the new FAO Secretary General Binay Ranjan Sen launched the Freedom from Hunger Campaign (FFHC), an initiative that became the organisation's flagship programme throughout the 1960s.[201] The FFHC's approach was partly based on community-level fundraising in developed countries. The money it raised was used to sponsor small-scale agricultural and educational projects in the developing world. This grassroots vision stood in stark contrast with the top-down, ultra-modern approach that had dominated international food and nutrition programmes in the previous decade.

Yet technology had not said its last word. While their colleagues puzzled over high-protein foods, some agronomists and engineers in development institutes were pursuing research into cereal hybridation, chemical fertilisers, pesticides, and farming equipment. Their findings paved the way for the Green Revolution.[202] Although it quickly outshone other efforts in food and nutrition, was the Green Revolution not also a monument to the thanklessness of scientific research? In international development, trial and error was par for the course. It arguably took high-protein foods, and many other failed attempts, for the Green Revolution to finally take off – for better or worse.

In spite of its mixed results, the protein malnutrition agenda left a more complex legacy than its critics have sometimes suggested. Most remarkably,

it made partnerships with MNEs front and centre of imperial and global health agendas. For MNEs, these partnerships came with indirect, and sometimes covert, benefits. To give just one example, tariffs and other types of trade barriers were a constant obstacle to the development of MNE activity in the developing world. But as the example of Nestlé showed, international development sometimes created loopholes. French imperial officials welcomed the presence of a 'foreign organisation' such as Nestlé in their colonial territories, so long as it served health and nutrition.[203] Collaborating with protein malnutrition projects, in other words, was an expedient way of circumventing national preference and other political impediments.

These colaborations came with further perks. The company's participation in nutrition projects was joined at the hip with its commercial ventures. Nestlé's kwashiorkor therapy trials in African hospitals helped spread the prescription and use of Nestlé formula by families who had rarely been exposed to these products before, if at all. Meanwhile, through its involvement in high-protein foods, Nestlé reached pre-school and school-age children. Nestlé's ambitions now sprawled beyond the market of early infancy. This boded well for the firm's future in the developing world.

It is therefore unsurprising that, far from wavering, Nestlé's enthusiasm for international development continued to grow in the 1950s and 1960s, and culminated with the creation of the Nestlé Foundation for the Study of the Problems of Nutrition in the World in 1966.

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6

The Nestlé Foundation

In April 1960 Nestlé inaugurated its brand new headquarters building in Vevey. To mark the occasion the company hosted a conference grandly titled 'Humanity and Subsistence'. The list of participants was packed with eminent development thinkers of the time. John K. Galbraith and Alfred Sauvy, two star economists; Friedrich T. Wahlen, Swiss federal councillor and former Deputy Director-General of FAO; Jacques Freymond, the director of the Graduate Institute of International Studies in Geneva who also sat on the board of directors of Nestlé; and René Dumont, a professor at the National Institute of Agronomy in Paris, were just a few of them. Trusted Nestlé partners, such as Guido Fanconi, were also present.

The event echoed perennial anxieties in Western development thought. 'The threat of famine in the world today is as grave as that of war', its brochure warned. 'Many books have been written and many meetings held on the themes of under-development, over-population and longevity. But public opinion – at least in the western world – does not appear to have understood the gravity of the threat'.[1] 'Can we feed an added 130,000 persons every day?', the *Journal de Genève* wondered in the wake of the symposium. Nestlé proposed precisely to find out how the food industry 'can and must concretely help find answers to this worrying question'.[2]

Pessimism was rife in Western development thought at the turn of the 1960s. Where, economist Walt Whitman Rostow asked in his 1960 'non-communist manifesto', *The Stages of Economic Growth*, was Western-style modernisation headed? 'Is it taking us to Communism; or to the affluent suburbs, nicely rounded out with social overhead capital; to destruction; to the moon; or where?' The geopolitical context partly explained this sombre mood. Faced with the inevitability of decolonisation, in the 1950s European powers had dreamt up a distant, orderly retreat from Empire; one that would lead to a dignified transition of power to cooperative newly independent governments. Only a few years later the reality was proving a much messier affair, not least in Suez, Algeria, Indochina, and the Congo. The rise to power of Marxist regimes through the ballot or the bullet in Korea,

Cuba, Poland, Czechoslovakia, Hungary, and Guinea further chipped away at the Western claim to global dominance. So did the birth of the non-aligned movement at the Bandung conference in 1955.[3] Even allowing for inevitable flaws, past international and imperial development schemes had conspicuously failed to assuage hunger, poverty, and political discontent.

Nevertheless, in the 1960s international development was given a new lease of life. As new African and Asian members joined the United Nations, the organisation pledged to make their development its priority, declaring in 1960 that,

> Considering that the economic and social development of the economically less developed countries is not only of primary importance to those countries but is also basic to the attainment of international peace and security, […] [The General Assembly] designates the current decade as the United Nations Development Decade.

The issue of food was as central as ever at the beginning of the so-called Development Decade. The US Food for Peace programme, the World Food Programme, and FAO's Freedom from Hunger Campaign were just a few of the initiatives that cropped up in donor countries and in IOs at the beginning of the 1960s. The rural world, and its welfare, hygiene, and food security, were often their top priority.

This was not exactly a new approach. Since the Industrial Revolution and Europe's second imperial expansion in the nineteenth century, the ruling classes in the West had considered the countryside as the place where disease and hunger proliferated. Lured by the promises of industrial employment, destitute rural throngs flocked to overcrowded cities in search of a better life. This, in turn, fed urban poverty, crime, and political unrest. Belle Epoque humanitarians had therefore considered the improvement of the rural world as the mother of all battles both at home and overseas. In the 1900s French 'bush doctors' roamed the backwaters of the Gulf of Guinea in the hope of curing yaws, sleeping sickness, and other endemic diseases.[4] Elsewhere philanthropic foundations and religious missionaries were spreading the gospel of Western medicine and agronomy in the hinterland of the Southern US, Latin America, Asia, and Africa.[5] Half a century later rural improvement was still high on the post-war agenda of the UN, of imperial powers and of donor nations.[6] But it was the Green Revolution, an 'extraordinary effort of agricultural development', that most vividly captured the imagination of the development-minded public in the 1960s.[7]

This did not go unnoticed in Vevey. In May 1966 a fund that Nestlé had set aside in order to 'cover certain risks deriving from litigations which have since then been settled' found itself in want of a new purpose.[8] That

month, the General Assembly of Nestlé approved a proposal by the board of administrators to create a Nestlé Foundation. A commemorative gesture timed to coincide with the celebration of the centenary of the firm that summer, the creation of the Nestlé Foundation was the brainchild of the Nestlé Alimentana's managing directors, Enrico Bignami and Jean-Constant Corthésy. It aimed at improving living conditions 'in those regions of the world where people are suffering from hunger and malnutrition'.[9] Endowed with a capital of 20 million francs, the Nestlé Foundation for the Study of the Problems of Nutrition in the World officially began in Lausanne, July 1967. Like many of its peers, the institutions became a microcosm of international development; an unusual one, however, in that its political and scientific agendas were often tightly enmeshed with corporate ones.

Small, efficient, and eager

Part publicity stunt, part intellectual experiment, the Nestlé Foundation followed in the footsteps of other prominent Swiss institutions dedicated to philanthropic and scientific work in the (post-)colonial world: the Basler Mission, founded in 1815, and the Schweizerisches Tropeninstitut, established in 1943. Marking Nestlé's centenary, the new organisation was an occasion to remind the public that Nestlé had 'always played an active part' in the advancement of nutrition and dietetics, fields 'of such vital importance to the health and well-being of adults and children'.[10] Of the actual work that the foundation would undertake, however, precious little was known in 1966. To remedy this Bignami, Corthésy, and Max Petitpierre, the former Swiss politician and now chairman of the board of directors of Nestlé, consulted experts in development, medicine, agriculture, and philanthropy. They were particularly engrossed with the Rockefeller Foundation and, closer to home, with the Basel-based pharmaceutical company CIBA which had established its eponymous foundation in 1947. As Bignami put it, 'it would be an invaluable guide to us if we knew how and why these programmes were so successful – we would hope to benefit from their experiences'.[11]

As their investigation progressed, however, it became clear that it was the failures of past development projects, not so much their successes, that interested them most. And failures there were aplenty for them to behold. As Louis Maire, vice-chairman of the Swiss delegation to FAO, put it to Petitpierre, international agencies had obtained 'quite paltry' results in their attempts to improve the food situation in the developing world.[12] 'Most international organizations', another expert told Bignami, 'have become like a pyramid the wrong way round like this: with a huge top heavy structure

with very little coming out of the bottom of value'.[13] They often developed rules 'so complex and unwieldy' that only the largest projects were deemed worth the cost of being appraised for funding. Furthermore, the resources of development agencies tended to be spread 'too thinly over vast fields'.[14]

Bignami believed that the Foundation would avoid these pitfalls by focusing narrowly on 'agricultural or food technology affairs'.[15] F.B., the head of the agricultural service of Nestlé's technical assistance company in Switzerland, Nestec, agreed. Furthermore, he believed, 'preference should be given to simple, small projects'.[16] Often, breakneck agricultural modernisation had proved ill-suited in 'subsistence farming communities'.[17] Even in Europe, 'the shift from subsistence farming to market agriculture' had often been 'accompanied by a deterioration of the nutritional level'. There was a risk that 'with poverty and ignorance as they are prevailing in the Third World, this will repeat itself there'.[18] As another adviser noted, 'It is hopeless finding ways of doing and bettering things if the farmer or peasant cannot absorb or comprehend how to do it'.[19] The Nestlé Foundation had to learn from these lessons. Small hand tools and animal-powered equipment ought to be given preference over more modern solutions. 'Efficient communication with the peasant farmer, who, after all, is the one for whom the aid is meant to be', was key to success.[20] By promoting projects that trained local staff and used 'the indigenous peasant under guidance as the demonstrator',[21] the Nestlé Foundation could become the 'badly missing links in most countries between research men and the illiterate farmer'.[22]

Yet the temptation to stage more spectacular interventions remained great. For all their resolve to honour traditional farming techniques, Nestlé directors were adamant that the Nestlé Foundation should simultaneously try to emulate programmes that had achieved very visible successes. The Rockefeller Foundation's work in Mexico, thanks to which 'the production of wheat has been greatly increased', was one of them.[23] A high-technology agronomic experiment, Mexico's Green Revolution was not exactly a model of unsophisticated, grassroots development. Choosing one domain of expertise in order to avoid squandering the new foundation's resources was also proving easier said than done. Possible activities for the foundation spanned irrigation, farming tools, pest control, fertilisers, the discovery of new food sources, the improved handling, storage, and processing of foodstuff, the reduction of waste, the 'economic aspects of food stuff production' including pricing, marketing, transport, and credit facilities.[24] And the list went on.

Amidst these deliberations the Nestlé Foundation was officially established in July 1967. Its objective was stated as 'contributing to improving nutrition in the regions of the world that suffer from under-nourishment, by encouraging the scientific and practical study of problems in direct connection with nutrition, in the fields of agricultural and animal production, of

food chemistry and technology, of biology and physiology'.[25] Alexander von Muralt, a soon-to-be-retired professor of physiology from the University of Bern, collaborator of Nestlé, and the creator and first chairman of the Swiss National Science Foundation, was confirmed as chairman of the governing body of the Nestlé Foundation, the Foundation Council.[26] Also sitting on the council were Hugo Aebi and Daniel Bovet, two Swiss professors of biochemistry; Sir Norman Wright, former deputy director-general of FAO; and Emil Wrak, a professor of food technology at the University of California, Davis, and a long-term friend of Nestlé.[27] S.H., a chemical engineer, former adviser within the Service of Scientific and Medical Documentation of Nestlé and a trusted Nestlé envoy in circles such as the International Union for Child Welfare and at International Congresses of Paediatrics, was appointed as the foundation's first director.[28]

According to its statutes, the Nestlé Foundation enjoyed total independence. In reality, however, its relationship with the Nestlé company was more ambiguous. As founder, Nestlé took part in decisions over the Nestlé Foundation's governance and activities. The firm carefully curated the membership of the Foundation Council and shortlisted candidates for the position of director. It covered the expenses of the secretariat of the foundation in Lausanne.[29] The administrators of the foundation themselves made no secret of their intention to collaborate with the company. 'Although you have insisted that we should be quite independent', Muralt told Corthésy, 'we wish to maintain very friendly bonds'.[30] Nestlé's 'experienced and well introduced staff' around the world would, Muralt believed, make 'a valuable contribution to the success of our work'.[31] The foundation's draft work programme also reflected the philosophy developed by Nestlé directors. The foundation, it stated, 'should act in a straight-forward way' with 'elasticity and rapidly'. Whereas international agencies had 'a tendency to grow, to increase their staff, to build up a slow and bureaucratic administration' and to 'lose their efficiency', the foundation would on the contrary 'remain small, efficient and eager in the pursuit of its plans'.[32] In order to avoid stretching its limited resources, it would concentrate on 'one or two problems'.

Yet before long the foundation's activities belied these mantras. The first sign of this was its chairman's limited interest for applied development projects. From the onset Nestlé executives had been convinced that the foundation should steer clear of fields that had 'already been extensively explored at the scientific level'.[33] Rather, it should focus on 'deriving practical results from what is already known'.[34] As they reiterated to Muralt,

> Organisations like ours must above all think of supporting actions and studies tending to practical solutions rather than to orient the activities of the

> Foundation on highly scientific matters […] We live in the fear, based on the observation of a whole series of international actions, that there may be certain risks in trying to do too much science and not enough rapidly useful work.[35]

The first years of Muralt's presidency did little to reassure them. A doctor in physics who later qualified as a physician with an MD in muscle biochemistry and physiology, Muralt was more partial to scientific research than to its public health application. Before long he became fixated on protein malnutrition, a medical issue that Nestlé's deputee administrator, Enrico Bignami, thought had 'already been the object of an enormous number of publications'.[36] In September 1968 the foundation hosted its first scientific conference on 'Protein-Calorie Malnutrition'. It was attended by respected figures such as Guillermo Arroyave, head of the division of physiological chemistry of INCAP, José Bengoa, the head of WHO's nutrition unit, C. Gopalan, director of the Nutrition Research Laboratories of Hyderabad, Derrick Jelliffe, who at this point had become director of the Caribbean Food and Nutrition Institute in Jamaica, and Roger Whitehead, a researcher at Kampala's paediatric clinic. Rather than a new start the Nestlé Foundation seemed oddly reminiscent of Nestlé's ventures in protein malnutrition a decade earlier. Similarly, although agriculture and in particular traditional farming techniques had previously been tipped as the main areas of expertise of the foundation, Muralt was uninterested. The only agronomic ideas that captivated him were of the high-tech variety. One of them concerned new hybrid, high-protein strands of maize, even if his colleagues at the foundation were all to aware that these plants had already been shown to '[perform] very poorly at the equator'.[37] Before long J.P., a Nestlé Alimentana executive who represented the firm at meetings of the Foundation Council, took it upon himself to 'subtly torpedo' Muralt's 'more or less wacky projects'.[38]

But it was another one of Muralt's ideas that had the most decisive impact on the foundation's early years. If Nestlé directors had ever taken one thing for granted, it was that the obvious method of the foundation would be to allocate grants and fellowships to individuals with the relevant academic or technical background. The foundation, they anticipated, would also sponsor publications and symposiums in order to help these experts disseminate their results.[39] This prediction was not entirely wrong, and the foundation did partly follow this course of action. It distributed grants to researchers and trainee scientists and technicians from different regions of the world.[40] But from the onset it became apparent that Muralt would not satisfy himself with being a mere 'banker' of development.[41] In 1968 he proposed that the

Foundation should dedicate around 60 per cent of its budget to running its own 'pilot experiment'.[42]

Development organisations had run pilot projects or, as they were sometimes called in rural contexts, 'village models', since the early twentieth century.[43] They still do today.[44] Unlike large programmes dedicated to one specific issue, such as mass vaccination campaigns, pilot projects consisted of multi-pronged development interventions on small samples of population. They tended to be conceived as experimental models which, if successful, could be replicated elsewhere, on a larger scale, or both. The Rockefeller Sanitary Commission for the Eradication of Hookworm Disease, which was active in the South of the United States between 1909 and 1914, stood amongst the earliest advocates for this approach. Its work combined public health education, medical treatment, and housing and public infrastructure measures (for instance the building of latrines). The method was subsequently implemented in several Latin American countries, where it became known for its problematic death toll.[45]

Muralt was not short of arguments when it came to extolling the virtues of his putative pilot project to the board of the foundation. First, it would avoid the dispersion of foundation resources by focusing them on one geographic zone. Secondly, it would have a catalytic effect. By demonstrating practical solutions locally, it would galvanise local politicians and the local population, focus their attention on malnutrition and agricultural improvements, and jolt them into investing into these issues in the long run.[46] This project would, in other terms, teach its hosts to help themselves; encourage them to 'muster initiative to try and solve their problems by their own means'.[47] Thirdly, the project would ensure the equal representation of expatriate and local staff.[48] Pairing European and local scientists would ensure the transfer of skills. 'White participation' would then gradually diminish.[49] This too would guarantee that the spirit of the project would live on even 'once the intervention of our Foundation has ceased'.[50] Finally, like its predecessors, the pilot project aspired to have a snowball or 'oil stain' effect within and beyond the host country.[51] 'We are confident', Muralt told Nestlé's deputee administrators, 'not just in the results of this work, but also in its repercussions as a model-study applicable to other developing countries'.[52] His was a persuasive case. The board approved the project.

The Ivory Coast Project

If foundation leaders were so enthused by the project, it was in large part because they were already enthralled with its prospective home: the Ivory Coast. As they quickly decided following a series of exploratory visits in the

late 1960s, the country had much to offer, not least thanks to its historical bonds with Nestlé. It had been the first independent sub-Saharan African nation to become home to a Nestlé factory. Nestlé's local branch, CAPRAL, had many friends both in the Ivorian government and the expatriate community. The President of the Republic himself, Félix Houphouët-Boigny, vowed to facilitate the installation of the foundation.[53] Just as importantly, foundation and Nestlé officials, who still felt the sting of the nationalisation of the firm's assets by Communist regimes in Eastern Europe and Cuba, considered the Ivory Coast as politically stable and therefore low-risk.[54] To round things off, the European scientific and development community was well established in the country. On the French side, the Office for Scientific and Technical Research Overseas (*Office pour la Recherche Scientifique et Technique Outre-Mer* – ORSTOM) and Institute for Tropical Agronomic Research (IRAT) were the heirs of France's first colonial development agencies in the 1940s. Established in 1951, the Swiss Centre of Scientific Research (*Centre Suisse de Recherches scientifiques*, CSRS) was one of only two Swiss research centres on the African continent. It specialised in botany and veterinary science. These institutions would doubtlessly constitute a 'good basis' for the pilot project.[55] All this boded well for the foundation, which, as Nestlé directors had previously recommended, ought to spend its money in 'countries where practical results may be expected'.[56]

There remained a few issues to iron out prior to the establishment of the pilot project: not least identifying a problem that needed fixing. Nestlé Foundation officials admitted that the Ivorian population suffered no 'caloric under-nourishment' and enjoyed a relatively good level of hygiene.[57] This judgement was largely based on less-than-scientific observations of the physique of its inhabitants. The women, they noted, were 'slim and very beautiful', while the men displayed 'bodies which the sculptors of ancient Greece would have been glad to take as models of masculine strength'.[58] Both children and adults looked generally happy and healthy. But this minor inconvenience did not discourage Muralt and S.H. Based on flimsy evidence, they convinced themselves that there existed 'a very unbalanced diet in favour of carbohydrates to the detriment of protein'.[59] The 'lack of proteins', 'food taboos', and 'parasites and disease' were particular concerns.[60]

Local politics also mattered. Houphouët-Boigny, in particular, was a formidable force to reckon with. His support was needed if the foundation was to find allies in the national and local governments. When he urged foundation officials to focus their efforts on the locality of Orumbo Boka, in the V Baoulé region, they were prompt to agree. The inland region was located some two hundred kilometres north-west of Abidjan, the country's economic and political capital on the Atlantic coast. Villages there, the Ivorian president affirmed, were severely affected by malnutrition.[61]

While on reconnaissance mission, foundation officials confirmed that one particular village in this region, Kpouébo, was 'isolated from civilisation'.[62] Its population of one to two thousand inhabitants lived in 'miserable' and 'primitive' conditions.[63] Four out of ten children died before their fifth birthday.[64] It was the ideal pilot village.

The hope that Houphouët-Boigny's support might open doors for the foundation proved founded. The ministries of public works promised to tarmac the forest track that led from the main road to the village in order to facilitate access for foundation vehicles. The Ministry of Public Health, meanwhile, committed to drilling three wells in the village.[65] Foundation officials were pleased. These pledges, they believed, were proof of the project's hoped-for catalytic effect and of the government's commitment to it. Little did they appear to realise that Ivorian authorities had exaggerated Kpouébo's isolation and misery. Most of the road from Abidjan to Kpouébo was already tarmacked. As subsequent reports of the foundation revealed, the region's inhabitants drew most of their income from export crops (cocoa and coffee).[66] Its nutritional profile was far from alarming, prompting a foundation report to note that 'there is no clinical malnutrition amongst children'.[67] Kpouébo was, however, located in the President's native region and close to his summer residence in the country's capital city, Yamoussoukro. That Houphouët-Boigny may have had ulterior motives by funnelling foreign development funds into his political bastion was not something that foundation officials discussed explicitly in their correspondence. If collaboration with government was to stand both as a principle and a necessity, the political instrumentalisation of aid was perhaps inevitable.

The future looked full of promise for the 'Ivory Coast Project', as the pilot project came to be called. But a lot of work still laid ahead. A base for the project needed to be built; a team, recruited; a work plan established. On the Western outskirts of Abidjan, the town of Adiopodoumé was home to ORSTOM, on whose vast grounds the CSRS was also established. With the help of Nestlé's local network, the Nestlé Foundation obtained a free lease on a plot of ORSTOM land for a duration of ten years. The building of the Nestlé Foundation compound was soon under way. It comprised a brand new laboratory and five houses, the future residences and offices of the foundation's foreign staff.

Staffing, in fact, proved harder than anticipated. A squeleton team comprising two Swiss medical doctors, J.-P.G. and G.P.R., and a laboratory technician, G.M., arrived in the Ivory Coast in July 1969. Recruiting Ivorian scientists, surveyors, and office workers, which had been the ambition of Foundation leaders, was more of a challenge. Medical doctor F.K., the Ivory Coast Project's first Ivorian recruit in 1969, started his assignment with a

four-month training course under the Nestlé Foundation's auspices in Bern. Upon his return to the Ivory Coast, however, he immediately quit and took up a position at the National Institute of Public Health.[68] Ivorian scientists were to remain a rarity on the Ivory Coast project, making its much-talked-about 'Ivorisation' a quickly fading illusion.[69]

Relationships with other scientific organisations did not get off to a much better start. As J.P. noted whilst on a visit in the early 1970s, 'it is not difficult to perceive among ORSTOM people a certain jealousy of the honours bestowed upon the Foundation, and the disenchanted smirk of the old colonials who see "tenderfeet" approaching Africa armed with their illusions'.[70] The frostiness was mutual. Proud of their lack of imperial baggage, the Swiss newcomers scoffed at what they saw as the old-fashioned paternalism of the French. French doctors, Muralt declared, had 'never helped the Ivorians familiarise themselves with their methods, the latter have therefore always depended on the French'.[71] The Nestlé Foundation, by contrast, intended to have 'Ivorians working with us and accept their failures and not only have White people like the French do'; even if it later struggled to keep this vow.

Biochemical methods

The 'activity of the Foundation in the Ivory Coast' looked impressive on paper.[72] A multidisciplinary, multi-centric endeavour, the Ivory Coast Project consisted of carefully articulated, overlapping phases that included socio-economic and medical surveys, nutritional education and supplementation campaigns, and agricultural experiments.[73] Its team started putting this ambitious work plan in practice 'with enthusiasm and much zeal'.[74]

Upon its arrival in Adiopodoumé the information that the team of the foundation possessed on the nutritional health of the population of the Ivory Coast was scant and often self-contradictory. Early Ivory Coast Project reports confirmed what Muralt and S.H. had previously suspected, namely that there was there was no 'caloric under-nourishment' in the country.[75] At the same time, under-five child mortality was estimated at a 'frightful' 40 per cent.[76] The explanation of foundation scientists for this situation was not devoid of cultural prejudice. The typical Ivorian family meal, they believed, did not meet the nutritional needs of young children. Infants were healthy as long as they were exclusively breastfed by their mother. However, as they were weaned from the breast, young children started eating the same diet as the adults of the family and suffering from 'protein and calorie malnutrition'.[77] 'Spicy food' was pinpointed as a cause for diarrhoea, dehydration, and weight loss.[78]

But the foundation's team recognised that their comprehension of the Ivorian situation was still in its infancy. The first phase of the Ivory Coast Project therefore consisted in obtaining a more precise picture of living and health conditions in the village of Kpouébo and of the district (or *sous-préfecture* in the Ivorian administrative language) in which it was located, Toumoudi. This exercise aimed at establishing a baseline nutritional profile of the region, one against which the foundation could appraise the results of its future experiments. The team conducted a census and a socio-economic and dietary study. The family structures, income levels, and calorie intake of Kpouébo households were carefully documented.

Next came a nutritional survey of children under the age of five. This required their clinical examination and anthropometric measurement, a time-tested method for the assessment of a child's nutritional health. By 1970 child nutrition had been a rallying cry for international, non-governmental, scientific, and business organisations for well over a century, as this book has shown so far. Whether their efforts had led to improvements in child welfare remained hard to ascertain in many parts of the world. What this century-long concern for the welfare of children did achieve, however, was to standardise the diagnostical and epidemiological methods used to measure nutritional health.[79] For some years now, the clinical examination and 'simple anthropometric measurement' of children had been the gold standard when it came to screening child malnutrition.[80] It included calculating the height-weight ratio, the height-age ratio, and arm circumference-age ratio. Nutrition experts such as Patrice Jelliffe advocated this method because it was easy to apply even in hard-to-access locations, and required neither high-end equipment nor highly skilled labour.

But the foundation had higher ambitions than to merely apply this received wisdom. Muralt and his colleagues at the foundation had recently become aware of new research on a more sophisticated approach to detecting malnutrition: the calculation of the ratio of certain amino acids (the building blocks of proteins) in the blood of patients.[81] Soon Muralt proclaimed that these 'biochemical methods' were 'just as important as anthropometric methods' in the screening of malnutrition, and that they could even be 'more sensitive than conventional methods to detect light forms of malnutrition'.[82] Indeed, his theory went, simple anthropometric measurements could help diagnose severe levels of malnutrition; however, they were not effective when searching for more moderate forms of the disease. The biochemical method, by contrast, could detect 'latent, invisible, and yet often disastrous' cases of malnutrition.[83]

One limitation of this method, however, was that it required laboratory facilities and trained technicians. This, Muralt believed, was why the Ivory Coast Project was about to do something 'entirely new' and 'original'.[84]

Whereas these methods had until then been available only in the hospitals of large cities, the project would bring them to 'primitive villages' of the Ivory Coast thanks to mobile laboratory units.[85] Little did the foundation appear to realise how commonplace this idea, in fact, was. Itinerance had been the classic method of French colonial medicine in the 1920s, when mobile teams and 'bush' healthcare dispensaries treated and vaccinated the rural population of West and Central Africa.[86] In 1969 the Ivory Coast Project purchased and equipped two Renault Super Goélette vans, complete with air conditioning, refrigerator, freezer, laboratory equipment, and a photometer.[87] Once again, both these programmes and their depiction in the foundation's annual reports betrayed the cultural and racial prejudice of the foundation toward Ivorian people. They represented White Europeans as active and authoritative, and Black Africans as passive and compliant.[88]

Testing started on fifty children of the village of Kpouébo. As they started trickling in, the early results were encouraging. Foundation researchers reported that the children showed 'no clinical signs of malnutrition'.[89] But their biochemical analyses revealed a frequent 'dysproteinemia', prompting the observation that 'biochemically 60% of [children] show pre-clinical signs of malnutrition'.[90] As the medical survey progressed, however, difficulties on the ground started to build up and flaws in its methodology became blatant. First, although five thousand inhabitants of the Toumoudi district were supposed to participate in it, the researchers only managed to recruit 297 children over the following three years, a disappointing sample size.[91] Secondly, in order to be properly interpreted, the biochemical results had to be correlated to a child's age. Unfortunately, however, due to frequent delays in the administrative registration of births in Toumoudi, age could rarely be ascertained. The human samples also left much to be desired. Whether children had fasted as instructed prior to having their blood drawn was unknown. Foundation researchers failed to get mothers to collect their child's urine over a twenty-four-hour period.[92] Next, although the foundation had hoped to monitor the same group of children over time, this too proved impossible. Populations were 'subject to a certain nomadism', and mothers became 'rapidly bored' and stopped bringing their child to foundation consultations.[93] Furthermore, in the hope of earning the trust of the population, foundation doctors spent a disproportionate amount of time dispensing primary health care rather than conducting research.[94] Finally, the Super Goélettes too proved 'impractical' considering the poor condition of the road.[95] Instead of being used to perform the all-important biochemical work on site, they only served as refrigerated vehicles, transporting blood samples from Kpouébo to Adiopodoumé.

If foundation researchers expected to find solace in the fact that the results of their medical study would be worth all their hard work, they must

have been sorely disappointed. Report after report ended on a variation of the same observation: 'our hope that the biochemical test would be more sensitive than the anthropometric tests was not fulfilled in this study'.[96] As the Ivory Coast Project put it in its final report in 1980, 'despite the most refined techniques, it remains difficult to detect cases of marginal malnutrition'. Having thoroughly experimented with the biochemical approach, the foundation advised against any further efforts to 'perfect existing methods' of malnutrition screening.[97]

Yet, whether it was out of pride or because admitting its failures could potentially jeopardise its future, the foundation did not fully acknowledge the weakness of its medical survey. Instead, it continued to uphold some of its initial, largely baseless assumptions, even when its own results showed that the nutritional situation in Toumoudi was 'not severe'.[98] One of its report estimated mortality in pre-school age children at 26 per cent, a high score albeit a lower one than the foundation previously suspected.[99] Another report claimed that in some villages of the district a third of children showed moderate signs of malnutrition.[100] In Toumoudi, Muralt reported in a Belgian medical journal in 1973, 'a rather great number of children are under-nourished, because of the monotony of the food'.[101] Improving the nutritional health of children therefore remained a priority.

In November 1972 Nestlé Foundation representatives attended a conference organised by the National Institute of Public Health of the Ivory Coast in Abidjan.[102] One of its conclusions was that there was 'no information available on the quality and quantity of the milk of young mums in the bush'.[103] Foundation scientists were only too happy to apply their biochemical methods to this new topic. During the following year they conducted analyses on the milk of lactating women in Toumoudi. Their results confirmed the well-known fact that 'the quantity and, to a lesser extent, the quality of maternal milk decrease over the course of nursing… hence, for the baby, the need of complementary foods, on average from the sixth month'.[104] The problem, however, accordingly to the results of the first phase of the Ivory Coast Project, was that the complementary foods consumed by the children of the pilot villages were inadequate and put them at risk of malnutrition.

A special meal for the child

The second phase of the Ivory Coast Project was therefore dedicated to finding new ways of supplementing the diet of Ivorian children. One of them was to cure Ivorian mothers of their presumed nutritional illiteracy. In 1973 the foundation started building 'Nestlé Foundation huts'. Three huts

were erected in the towns of Bouaké and Abidjan with financial help from the Nestlé company in the Ivory Coast.[105] Located just outside hospitals, maternities and maternal and child protection (PMI) centres, the new buildings served as demonstration kitchens; mothers who had just given birth or who took their child to a medical consultation were encouraged to attend nutrition and cooking lessons in them.[106] Under the supervision of Ivorian staff, dietician G.N.'Z. and social workers N.'G.K. and S.A., these mothers were taught to prepare balanced meals for their child. Although Nestlé Foundation reports insisted that the meals prepared at the huts were based on simple, cheap, and local ingredients available to all Ivorian families, they instilled the notion of a 'special meal for the child'.[107] This notion underpinned more sophisticated foundation experiments in the field of nutritional supplementation.[108]

Coincidentally, important developments were taking place at Nestlé. At the turn of the 1970s, its officials remarked that 'the proteinic aspect of foods attracts attention more and more thanks to the propaganda of organisations such as WHO, FAO, etc'.[109] This was both an opportunity and a threat. The firm had started dabbling in high-protein foods in Africa in the 1950s, in close partnership with FAO and French colonial doctors. Although it had chosen not to follow through with its experimental peanut-based biscuits and soups at the time, during the following decade Nestlé continued to work on the development of 'improved protein foods' including drinks and snacks.[110] Its objective was to 'create, for developing countries, foods of good organoleptic quality, low price, good sociological and psychological adaptability and above all with a protein content of good biological value'.[111] It was with this in mind that Nestlé started testing a new high-protein formula based on soy, chickpea flour, wheat, and sugar that contained '17% balanced proteins', Fortiran. Iran, Brazil, and India were first in line for these tests. At the same time, there was a risk that the growing market of high-protein foods might fall prey to rival interests. As the Nestlé Alimentana executive J.P. warned, Fortiran also needed to be launched in Africa 'as soon as possible…especially if we want to prevent FAO from competing with us with Supéramine'.[112]

Against this backdrop, the foundation's scientific team proposed to test Fortiran in the Ivory Coast in order to improve the nutritional health of children over the age of six months.[113] Nestlé executives were cautiously supportive. True, they had previously warned Muralt against veering too much in the direction of protein malnutrition research, an already saturated scientific domain according to them. But the foundation's research on the adjacent question of high-protein foods, by contrast, 'indisputably [served]' the firm. 'Although the independence of the Foundation vis-à-vis Nestlé has been underlined many times', J.P. noted, 'there is no doubt that, in the mind

of the population and even that of the officials, there is a great confusion between the two'.[114] In addition, the foundation's study would help Nestlé determine if the Fortiran recipe needed to be adapted based on local agricultural resources and tastes.[115] Its results could be presented at the 'training course for sales executives from Africa' in Vevey.[116]

From the foundation's perspective, the experiment offered a new field of application for its medical and biochemical research into the nutritional health of Ivorian children. Launched in August 1971 for a period of six months, it aimed at teasing out 'the influence, on the ratio arm/head circumference and the hydroxyproline index, of a daily supplemental dose of proteins in the form of Fortiran'.[117] It was conducted on two groups of twenty children: an 'experimental' group which received a daily dose of Fortiran in a village near Adiopodoumé, and a 'control' group which did not receive it in the village of Kpouébo. In order to minimise the interference of other variables on the results, both groups received antimalarial and antiparasitic drugs and vitamin supplementation.[118] Biological and anthropometric analyses were performed on the children every week.

Not everything went smoothly. The children were uncooperative: they were 'not used to the taste and to eating at given hours', and initially had to be force-fed the product.[119] Their parents also had concerns. A month after the start of the study, some of them refused to send their children to the weekly medical examination. A rumour was circulating according to which foundation researchers drew a litre of blood from them and had bribed the head of the village.[120] By the end of the study, the number of participants in the experimental group had dropped to ten children, and to twelve in the control group.[121] Unsurprisingly, the results were inconclusive. The children in the experimental group gained weight at a faster rate than those of the control group. However, their growth remained unaffected.[122] Foundation researchers attempted to control the effect of Fortiran supplementation a year after the end of the study, but failed to obtain valid results due to the reoccurrence of parasitic diseases in the children. A similar study on another experimental food, 'Ignasson', a prototype high-protein food based on yams (*igname* in French) and fish (*poisson*), yielded equally unconvincing results.[123]

Altogether, these studies failed to demonstrate any of the hypothetic nutritional benefits of high-protein foods. By the mid-1970s they were dropped from the foundation's work programme. However, this did not alter the foundation's faith in Nestlé's products. In truth, its President himself was their staunch advocate, even as the anti-formula movement started gathering momentum. 'Where they are accessible from the economic viewpoint', Muralt reportedly affirmed, formula had its place in the developing world, and was even 'desirable'.[124] Whether one liked it or not, he further affirmed,

breastfeeding was losing ground as a result of changing lifestyles, and Nestlé was therefore 'going to win'.[125] During a presentation of the Nestlé Foundation at the World Bank in Washington in 1975, Muralt defended the firm against 'absurd stories' regarding the 'forced sales techniques of Nestlé in the Third World' that a member of the audience angrily flung at him.[126] The following year, at a conference organised by the CIBA Foundation on 'Breastfeeding and the mother' in London, he felt vindicated when nutrition expert and prominent formula sceptic Patrice Jelliffe agreed with him on the necessity of supplementing a baby's diet from the sixth to eighth month.[127] The subtlety, however, lay in how one defined supplementation. For Nestlé and foundation officials, this continued to mean manufactured formula, not just traditional foods.

Although much of the work of the Ivory Coast Project was medical, the foundation did not completely lose sight of the original focus of its founders, which had been agriculture. In fact, foundation leaders were as enthralled as the next person by news of the Green Revolution, which as they learnt in 1969 had led to a quadrupling of Mexico's wheat yield thanks to new hybrid strains, fertilisers, pesticides, and irrigation techniques.[128] Comparable successes were reported in India, China, and the Philippines, where the government and the Ford and Rockefeller Foundations established the International Rice Research Institute (IRRI). In Africa however, such successes were still to materialise. In 1965 one of the main financial backers of the Green Revolution, the Rockefeller Foundation, started funding a research station in the Nigerian town of Ibadan, the International Institute of Tropical Agriculture (IITA), to conduct experiments on new plants. The French did the same at their IRAT base in the Ivorian town of Bouaké.[129] And so, too, did the Nestlé Foundation. The previous phases of the Ivory Coast Project had analysed the nutritional situation of pilot villages and tested various food supplements. Its third phase now proposed to improve the villagers' diets by diversifying their agricultural production. The foundation, however, could not resist giving even this part of its work a medical twist. Once again, it deployed its clinical and biochemical methods to measure the effect of its agricultural programme on the nutritional health of children.

In Kpouébo, like in most forested regions of the Ivory Coast, the traditional diet relied heavily on yam and plantain, two foods that were notoriously rich in carbohydrates but poor in proteins. The first project of the foundation's agricultural programme aimed at introducing the culture of cereals, a more protein-rich staple, in Kpouébo; in other terms, to trigger a shift 'from root culture to seed culture'.[130] But it was not just any cereal that the foundation had in mind. Most grains contain insufficient amounts of at least one of the nine so-called 'essential' amino acids that are vital in

human nutrition because the human body cannot synthesise them. In the 1960s scientists at Purdue University in the United States and the American University of Beirut in Lebanon invented new varieties of wheat and maize with a high lysin content, one of these often-lacking amino acids.[131] This made these new varieties of grains 'complete' vegetal proteins, much like soya and quinoa. It was these hybrid cereals, 'Opaque-2' and 'CBJ' maize and 'Najah' wheat in particular, that the foundation decided to experiment in the Ivory Coast.

Despite agreeing to help the foundation, IRAT agronomists had concerns. The success of many new hybrid crops, they remarked, had hinged on their high-yielding properties. Hybrid strains developed specifically for their high-protein content, on the contrary, tended to have a lower-than-average yield.[132] Moreover, the culture of hybrid plants was a capital-intensive affair, requiring not only seeds but also modern farming equipment and products, for hybrid crops were more sensitive to droughts and pests.[133] The foundation had made no such provisions. Also, the acceptability of hybrid cereals tended to be low, due to their unfamiliar colour, taste, and texture.[134] As IRAT tried to convince the foundation, it was a much better idea to try and introduce very incremental improvements to traditional farming techniques.[135]

Foundation staff dismissed these reservations as simply a symptom of IRAT's 'passive resistance', and in 1970 the seeds were sewn in IRAT's experimental fields in Bouaké regardless.[136] The new crops were also tested in real-life conditions in Kpouébo. Following the time-honoured model of European farming, the foundation created a new farmers' cooperative.[137] Its agriculture experts, Ivorian agronomist L.D. and Swiss farmer M.V., used its gatherings to distribute the seeds and equipment, to organise the required communal work on the new cultures, and to demonstrate new cultivation methods to the villagers.[138] IRAT's predictions were, unfortunately, correct. During the first planting season, 60 per cent of the experimental field of Opaque-2 maize was destroyed by rodents and humidity.[139] Further losses occurred during storage. Subsequent harvests did not fare better. After a few years, the foundation conceded that the 'most prudent attitude' was to leave research on better-adapted strains to IRAT and the IITA.[140] Foundation experiments with another cereal, rice, were more promising. The 'repulsion' for rice of the Baoulé people, the main ethnic group of the Kpouébo region, was proverbial.[141] Yet under the guidance of foundation agronomists, rice production in Kpouébo rose from 25 to 172 tonnes between 1972 and 1975, an estimated 40 per cent of which was self-consumed.[142] Yet even this success had its downsides. In the late 1970s the village's production far exceeded its own and the market's demand, leading to new economic difficulties.[143] Altogether, the foundation's cereal experiments largely failed

to diversify the diet of Kpouébo residents, and in particular to increase the protein intake of children. So did other foundation trials, such as the distribution of chickens. A rare treat, meat tended to be consumed by fathers exclusively.[144]

Undeterred, foundation researchers embarked on another agricultural endeavour: the culture of legumes. In 1975 the U.S. National Academy of Science drew the attention of international agriculture experts on a new 'wonder crop'. A plant originating from New Guinea, the winged bean (*psophocarpus tetragonolobus*), was pitted as the new 'high protein crop in the tropics'.[145] It was high-yielding, rich in proteins, and entirely edible, beans, pods, and tubers included. The International Council for the Development of Under-Utilized Plants invited researchers around the world to share their findings under its auspices.[146] Ever the enthusiast, Muralt heeded this call by proposing that the foundation test the winged bean in the Ivory Coast.[147]

Several varieties of winged bean were planted in experimental fields at ORSTOM and in Kpouébo.[148] Demonstration fields were also started in two villages located in-between two eco-climatic zones of the Ivory Coast, the forest and the savanna.[149] These villages, Didakouadikro and Didayaokro, were believed to suffer from a particularly monotonous diet and a rate of 'marginal malnutrition' of 50 per cent.[150] Unlike previous foundation agricultural projects, this campaign focused on women: they were traditionally in charge of tending to the family's vegetable garden, and foundation officials considered them as generally more open to new ideas than men.[151] Indeed, during the first year of the campaign, two thirds of the women of the village of Didakouadiokro accepted to grow winged beans in their gardens; the following year, all of them declared themselves interested.[152] The 'wonder crop', however, did not live up to the foundation's expectations. Much of the first harvest was destroyed by parasites such as pytium, antrachnoses, and nematodes.[153] Furthermore, while one of the advantages of the winged bean was that it was supposed to be perennial, it soon became clear that the plants could not survive the Ivorian dry season, and therefore had to be replanted every year.[154]

Its culture was not the only problem with the winged bean. Prior to being eaten it needed to be soaked overnight then cooked for three to four hours. Didakouadikro inhabitants who inadvertently cooked it for a mere half-hour declared the plant inedible and threw it away.[155] To prevent such incidents, foundation researchers organised regular cooking demonstrations in the pilot villages. Testers, they reported, 'liked the dishes', especially those in which the winged bean was integrated into familiar preparations such as peanut sauce.[156] It remained the case, however, that the legume demanded 'a lot of energy'.[157]

Despite these difficulties the foundation still hoped to demonstrate the benefits of the winged bean on the health of children. After conducting a census, a dietary survey, and antiparasitic and vaccination campaigns in the two pilot villages and in a third village, Didablé, which served as a control group, foundation doctors collected blood and urine samples from children at six-month intervals between 1977 and 1978.[158] Their results, which they presented at the first International Symposium on Developing the Potential of the Winged Bean at the IRRI headquarters in Manila in January 1978, showed an 'improved nutritional status and better growth pattern in the children of the experimental village'.[159]

By the foundation's own admission, however, the winged bean experience was a failure. According to an evaluation it conducted in 1985, five years after the closure of the Ivory Coast Project, its culture had been completely abandoned. Although the foundation had assumed that women would be seduced by this subsistence crop, the project showed that they had no interest in a capricious legume for which there was no market. Once again, the chiasm between the 'considerable interest from the scientific community' for technological innovations and their lack of practical achievements was glaring.[160]

Conclusions

By the time it wound down operations in the Ivory Coast in 1979, the Nestlé Foundation had produced an enormous volume of written reports. But Nestlé executives and some members of the board of the foundation had for some years deplored its 'absence of practical realisation'.[161] The purported 'Ivorisation' of the Ivory Coast Project and its continuation after the retreat of the foundation were undewhelming. The foundation agreed to continue to pay the salary of two of its former Ivorian employees until 1982 following their integration into the Ministry for Women's Condition (*Ministère de la condition féminine*).[162] Another two former Ivorian foundation scientists were recruited by Nestlé's Ivorian companies.[163] The foundation's buildings and equipment in Adiopodoumé were bequeathed to ORSTOM. But apart from that, the foundation left little behind, whether in terms of local expertise or improvements. Foundation members did not consider their work a failure, however. From the onset and despite the exhortations of Nestlé executives, Muralt had maintained that 'our work is to study malnutrition, not to cure it'.[164] As the foundation put it in its final report on the Ivory Coast Project, due to its limited financial resources it had never claimed to achieve a 'massive effect' on the nutritional health of the Ivorian population. Its mission, rather, had been to 'set a precedent and find an ever wider circle

of imitators'.[165] In practice however, even this more modest objective had proved difficult to attain.

Admittedly, Nestlé observers recognised that the foundation was not solely to blame for this. 'Obstacles of local taboos and deep-rooted traditional nutritional habits' were also accountable for the limited success of the project.[166] So, former Nestlé chairman Max Petitpierre insinuated, were Ivorian authorities. 'The utilisation of the results of the research' of the foundation, as he put it, was 'dependent not on the Foundation but on the Governments to which they are communicated.[167] These difficulties were a lesson in themselves: 'we hope', as one foundation report put it, 'that our failures…may be useful for those who attempt nutritional reforms in other regions'.[168]

But in spite of all of this, there is perhaps more to the legacy of the Ivory Coast Project than meets the eye. The early years of the Nestlé Foundation affords a rare insight into the minutiae of corporate involvement in development in the 1970s, not least due to the uniquely close links between the foundation and its founder, Nestlé. The foundation drew on Nestlé's past experiences in multiple fields: nutritional research, food engineering, and the building of a web of backers from governmental, international, scientific organisations. Nestlé, meanwhile, saw potential commercial and reputational benefits in its association with the foundation. Nestlé executives considered the foundation's studies on Ivorian women's milk, on children, and on Fortiran as business opportunities, and foundation members agreed. The results of these studies were disseminated at international scientific and development conferences, at a time when international recriminations against Nestlé's activities in the developing world soared and peaked in the second half of the 1970s. But its decades-long involvement in international development, which culminated with the Nestlé Foundation, partly helped Nestlé weather the storm. While global public opinion was horrified to discover the deadly consequences of the marketing of infant formula in the developing world, in development and scientific circles, the company's reputation remained largely untarnished. As so often in its past, managing the tension between these two conflicting realities became second nature for the firm.

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Conclusions

At first glance, it resembles any other packaged snack, with its red and white individual wrapper and its brand logo. Yet Plumpy'nut is a peanut paste used to fight malnutrition in humanitarian emergencies. Also rich in skimmed powdered milk and sugar, it is used by humanitarian organisations such as UNICEF, Action Against Hunger, and Save the Children worldwide, and belongs to a category of products called ready-to-use therapeutic foods (RUTF).[1] Such is its usefulness in the management of acute malnutrition that it has prompted the non-governmental organisation Doctors Without Borders (*Médecins Sans Frontières* – MSF) to call it 'Africa's Miracle Food'.[2] But it is not just professional humanitarians that have celebrated Plumpy'nut since its launch in the 1980s. In a 2010 article entitled 'The Peanut Solution', the *New York Times Magazine* wrote that 'Like most tales

Figure C.1 ©Nutriset – Plumpy'Nut®, ready-to-use therapeutic food, RUTF.
Source: https://nutriset.fr/

of great invention, the story of Plumpy'nut begins with a eureka moment, in this case involving a French doctor and a jar of Nutella, and proceeds through the stages of rejection, acceptance, evangelization and mass production'.[3] Yet no discovery happens in a vacuum, and Plumpy'nut bears an uncanny resemblance to the peanut-based, high-protein foods developed by Nestlé and other manufacturers in the 1950s, in partnership with colonial health experts and FAO.

Plumpy'nut also has its detractors. In 2008 the MSF Campaign for Access to Essential Medicines criticised the French company Nutriset, the Plumpy'nut manufacturer, for guarding its patent rights over Plumpy'nut even when it did not have the capacity to meet the rising demand for the product. Put bluntly, the firm was using its intellectual property rights to hamper access to a life-saving food. Soon afterward, Nutriset placed the Plumpy'nut recipe under an open licence, allowing local manufacturers to supply humanitarian organisations. The company has maintained that this decision was the result of a long-premeditated plan, and had nothing to do with the controversy.

Some development scholars have criticised the rise of Plumpy'nut and other branded humanitarian technologies, which they equate to the takeover of the development sector by neoliberal ideologues in the 1980s.[4] International relations scholars too have viewed the emergence of partnerships between international and non-governmental organisations on the one hand, and businesses on the other, as a product of the post-Cold War era.[5] But the enmeshment between capitalism and humanitarianism is, in fact, nothing new. Western humanitarianism, as Didier Fassin and others have demonstrated, is firmly rooted in industrial capitalism and its offshoot, imperialism.[6] Philanthropic foundations, with their enthusiasm for technological solutions to development in the Global South rather than for transformative policies guided by the principles of social justice, have also been criticised for covertly serving the interests of their powerful capitalist founders, whether they were a John D. Rockefeller in the 1900s or a Bill Gates since the 2000s.[7]

Plumpy'nut, then, belongs to a long history of relationships between food, business, and international development, one in which, as this book demonstrates, Nestlé has featured prominently. Sometimes friendly, sometimes adversarial, these relationships were always ambiguous. Author Mike Muller himself acknowledged this ambiguity in his 1974 report *The Baby Killer*, the manifesto of the anti-formula movement, in which he wrote that his own organisation was

> one of many Third World charities indebted to certain of the milk companies for donations of infant foods and other products for relief programmes. In disasters and other abnormal situations, these products can be extremely useful. We may be accused of 'biting the hand that feeds' with this report.[8]

Nestlé, too, has had to reckon with this ambiguity. Over the century that followed its establishment on the shores of Lake Geneva in the 1860s, the company built alliances with leading figures in agriculture, health, and humanitarianism. These alliances were profitable for the firm. They ranged from preferential commercial deals to reputational benefits, access to strategic information, and influence over international policy-making. There were also downsides to Nestlé's development experiments, however, as the firm's squabbles with doctors, international organisations, and the governments of developing countries sometimes showed.

These difficulties notwithstanding, being a party to the aid industry has always been a source of pride for the firm. According to a book published for its centenary in 1966, Nestlé delivered 'practical advice on hygiene and infant feeding…to mothers in parts or the globe that are far removed from those paradises for babies we call day-nurseries'.[9] A decade later, amidst the international outcry against Nestlé's marketing practices in developing countries, an official publication entitled *Nestlé in the developing countries* once again defended Nestlé's record in the Global South. The total spending of Nestlé companies in the developing countries amounted to 3 billion francs, of which 72.7 per cent was spent locally and only 27.3 per cent flowed outwards (including the payment of dividends, royalties, and imported goods).[10] This, the report argued, was a clear indication of Nestlé's positive contribution to the Global South.[11]

Yet, as I have argued in these pages, the reality has been infinitely more complex than these declarations suggest. In the next few pages, I summarise the findings of this book, and emphasise their significance.

Our story both started and ended in the 1970s, a time when Nestlé received unwanted attention for its allegedly unethical marketing of infant formula in the developing world. As I showed in the introduction, despite or perhaps because of this attention-grabbing event, the history of Nestlé's involvement in international development in the more distant past has been long neglected. Through a discussion of the literature, methodology, and scope of the book, the introduction showed how the surprising story of Nestlé's long-term expansion in the Global South challenges some of our assumptions around the history of international development and multinational firms.

Part I of the book followed the early decades of Nestlé's development activities in the real-life 'Swiss laboratory' from the 1860s to the inter-war

period. Chapter 1 introduced the origins of the infant formula industry in the second half of the nineteenth century. It discussed how, in the industrialising worlds of Europe and North America, formula manufacturers responded to a growing demand for artificial infant foods. This occurred in a context of rising female employment in industry, of new scientific discoveries in the emerging fields of nutrition and paediatrics, and of agricultural and technological changes affecting food production and consumption.

Focusing more closely on Switzerland, the chapter documented Nestlé's early engagement with these entangled fields of science and politics. It described how Nestlé's activities were initially considered as a blessing for Switzerland's agriculture, children's health, and the economy in the last decades of the nineteenth century. It then showed that opinions started to turn around the 1900s when physicians, farmers, and politicians became critical of Nestlé's business model in Switzerland and abroad. Finally, the chapter investigated Nestlé's role in Switzerland's food politics during the First World War, and argued that this experience cemented the firm's status as a central player of Swiss public life.

This chapter introduced themes that recurred throughout the book: Nestlé's role in shaping scientific knowledge and public policy; the ebb and flow of the firm's reputation in health, agriculture, and trade; and its budding relationships with State and non-State protagonists of development.

Chapter 2 described Nestlé's involvement in public health and medical research in Switzerland from the inter-war period to the late 1940s. Nestlé had relied on doctors and paediatricians to promote its products to mothers since its creation in 1866, and had found trusted allies in them. By the 1920s however, as scientific knowledge in nutrition and paediatrics started to change, Nestlé needed more robust medical arguments to shore up its reputation in the field of infant health.

Nestlé's new medical strategy during this period rested on two main pillars. First, the firm positioned itself as a prominent philanthropic donor to child health institutions, thereby acquiring a central role in Swiss public health. Secondly, Nestlé sealed partnerships with the most eminent Swiss paediatricians of the time. These paediatricians accepted to conduct clinical trials of Nestlé's products, bestowing credibility to the firm's 'medical propaganda' and advertising. The Nestlé Nursery crystallised these two aspects of Nestlé's medical strategy. Created by the firm in 1937, this institution served the dual purpose of showcasing Nestlé's commitment to child health and welfare, and of providing Nestlé with its own research facility and a pool of study participants. By the end of the Second World War, Nestlé enjoyed an excellent reputation in the Swiss medical community, and this enabled the firm to develop a thriving medical network in Switzerland, Europe, and worldwide.

Chapter 3 documented Nestlé's relationships with humanitarian organisations from the First to the Second World War. Although its products had already been a staple of humanitarian ambulances during international conflicts of the nineteenth century, Nestlé's links with humanitarians were becoming increasingly sophisticated. This was possible in part because of Geneva's status as the historical cradle and the fledging world capital of international humanitarianism. The chapter followed the evolution of Nestlé's links with two emblematic humanitarian organisations, the International Committee of the Red Cross (ICRC) and the Save the Children International Union (SCIU).

The chapter scrutinised Nestlé's motives for partnering with humanitarians, and vice versa. For the firm, the first of these motives was reputational. During the First World War, Nestlé made sizeable donations to the International Committee of the Red Cross. But commercial incentives were also an important driver of Nestlé's humanitarian activities. During the Second World War, the firm developed complex commercial arrangements with the Red Cross and Save the Children, in the hope of 'securing some kind of monopoly' over the supply of milk products to these organisations. This strategy bore fruit: wartime humanitarian operations enabled the firm to penetrate prospective new markets in distant countries, at a time of considerable trade restrictions. Humanitarian organisations, meanwhile, were eager to harness Nestlé's financial resources, managerial skills, and logistical experience.

Nestlé's agrarian, medical, and humanitarian experiments from the First to the Second World War heralded the firm's involvement in international development politics, which peaked in the post-1945 period. Part II of the book focused on distinct, if overlapping, phases of this process.

As Chapter 4 demonstrated, Nestlé was no newcomer to the international stage in 1945: it had started manufacturing locally in the 'relatively less-developed countries' since the early twentieth century, first in Australia in 1906, then in Latin American countries during the inter-war period, including Mexico, Cuba, Argentina, and Chile; and in South Africa in 1927. What changed after the Second World War is that whereas Nestlé's international expansion had once been primarily guided by tariff and production-related considerations, from 1945 onward the international development agenda became an important framework for Nestlé's activities in the Global South. This was a period marked by volatile terms of trade on commodity markets, new international food security experiments, and changing medical approaches to nutrition. This chapter scrutinised Nestlé's initial forays into the nascent international development system of the late 1940s and 1950s, spearheaded by the new specialised agencies of the United Nations (UN).

Nestlé's previous development experiences served as a blueprint for the firm's participation in the post-war development programmes of the Food and Agriculture Organization (FAO), World Health Organization (WHO), and United Nations Children's Emergency Fund (UNICEF), of the Swiss development aid apparatus, and of non-governmental organisations such as Save the Children. While the UN usually welcomed Nestlé's interventions, tensions and competition sometimes flared up. Focusing on examples from Mexico, India, and the Ivory Coast, the chapter examined how Nestlé navigated the post-war politics of international development and their Cold War and imperial undercurrents.

In Chapter 5 we examined how, in the 1950s, changing scientific and medical guidelines in infant nutrition in Europe and the United States started endangering the position of Nestlé's products in the industrial world. At the same time, against the backdrop of post-war international development and of growing anti-imperial discourses, nutrition emerged as a crucial field in the development agenda of international organisations and imperial powers in Africa. These circumstances created an opportunity for Nestlé to become involved in nutrition programmes on the continent, which Nestlé executive considered as 'a prospective market that we must win'.

The post-war nutrition agenda of international organisations and imperial powers in Africa was dominated by the management of the so-called 'protein gap' and its consequence: kwashiorkor. Rooted in racist assumptions regarding the superiority of the protein-rich Western diet, this preoccupation with kwashiorkor enabled Nestlé to become a partner of nutritional and medical research in Africa. Focusing particularly on the colonial region of French West Africa, this chapter documents two aspects of Nestlé's participation in African nutrition. First, Nestlé tried to repackage its existing products as valuable 'therapeutic' foods for the treatment of protein malnutrition. To achieve this goal, the firm took inspiration from its tried-and-tested medical strategy in Switzerland: it built a close-knit network of colonial physicians, and organised clinical trials in their hospitals. Secondly, Nestlé partnered with FAO and colonial administrations, contributing its technological know-how to the development of new high-protein foods. These collaborations boosted the commercial performance of Nestlé products in Africa in the late colonial period.

Chapter 6 moved on to the 1960s, a time when the United Nations Development Decade was in full swing. In May 1966, in commemoration of the centenary of Nestlé, the firm's shareholders approved the creation of a philanthropic foundation dedicated to improving living conditions 'in those regions of the world where people are suffering from hunger and malnutrition': the Nestlé Foundation for the Study of the Problems of Nutrition in the World.

This chapter examined the first fifteen years of the Nestlé Foundation, which still operates today. During that period, its main activity was known as the 'Ivory Coast Project'. Headquartered near Abidjan, the Ivory Coast Project became a microcosm of Nestlé's development ambitions. It featured collaborations between Nestlé's Swiss, French, and Ivorian branches; local and national Ivorian authorities; and French, Swiss, and international scientific and aid agencies. The Foundation's activities straddled multiple fields of development, from socio-economic, medical, and agronomic studies to nutrition and hygiene campaigns and agricultural extension work. The project was intriguing, insofar as its timing coincided with rising expert and public recriminations against Nestlé's marketing strategy in developing countries. This chapter revealed that even as the international anti-formula movement gathered pace, the perception of Nestlé by governments, scientists, and international organisations was in fact more nuanced than many accounts suggest. The long 1970s of the Ivorian Project constitute this book's last window into Nestlé's involvement in international development.

This book, in sum, took us on a journey from the Alpine valleys of late nineteenth-century Switzerland to the hospitals of post-independence West Africa. It found that Nestlé earned a seat at the table of international aid by partnering respected development institutions. It revealed the surprising story of Nestlé's ventures on the humanitarian market brokered the Red Cross in wartime Europe, of its clinical trials in Swiss and Senegalese maternities, and of its agricultural modernisation schemes in Mexico, India, and the Ivory Coast. But these corporate manoeuvres were never to everyone's taste. Against the backdrop of two World Wars, the Cold War, and the downfall of Europe's colonial empires, the book uncovered the long-forgotten alliances and controversies that continue to shape the aid industry.

By using the lens of Nestlé, and by mobilising an exclusive multilingual corpus of corporate, non-governmental, and international sources, this book aimed to bring historical depth and nuance to ongoing debates on multinationals and their role in development in the Global South. Along the way, I hope to have highlighted previously unsuspected connections between established and emerging fields of history: global and business history, the history of medicine, science and technology, and the history of food, to name but a few.

A quarter of the way into the twenty-first century, the attitude of MNEs in times of war and natural disasters continues to make news headlines. Asked in March 2022 whether French companies should cease all activities in Russia in the wake of the invasion of Ukraine, Pascal Lamy, former Director General of the World Trade Organisation and Head of Mission Council (an advisory body) at the French multinational company Danone,

said that for Danone the decision to continue operating was justified 'if it is baby food or milk for maternities'.[12] Millions of cows, he added, were at risk of dying if Danone left Russia. On 6 March 2022, the company declared that it was stopping all investments in the country, which represented 5 per cent of its global turnover, but that it would continue manufacturing and distributing its dairy products there. But this decision was short-lived. In October 2022, Danone announced its intention to retreat from Russia.[13]

In doing so Danone added its name to an increasingly long list of MNEs unwilling to stand accused of countenancing the Russian regime. Ukrainian politicians and activists have called on Western MNEs to halt their operations in the country, arguing that through the tax revenues, goods, and services that MNEs generate, they contribute to Moscow's military intervention in Ukraine. Lamy himself noted in March 2022 that 'five hundred multinational enterprises have left Russia of their own volition because they fear a reputational effect on their brand'.[14]

Nestlé, by contrast, has opted to stay put in Russia. Shortly after the start of the conflict, the firm announced that it would stop all advertisement, capital investment, and the import and export of nonessential products to and from Russia.[15] While these measures meant that the firm did 'not expect to make a profit […] for the foreseeable future in Russia', it remained determined to 'focus on providing essential food, such as infant food and medical/hospital nutrition'.[16] 'Offering nutrition to people' even in 'very difficult countries', Nestlé CEO Paul Bulke has argued, is 'our DNA'.[17]

As of mid-2025, these measures remained in place. In addition, Nestlé has reported that it has 'delivered more than CHF 24 million in product and monetary contributions to local humanitarian organizations in Ukraine and to help those displaced by the war in neighboring countries'. It has also announced its intention to invest CHF 40 million for a new factory in Western Ukraine.[18] The history of Nestlé's delicate relationship to development in an unstable world is, it appears, still in the making.

Notes

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Annexes

Annex 1 | Nestlé/Anglo-Swiss Condensed Milk Company factories, 1866–1905

Nestlé				*Anglo-Swiss Condensed Milk Company*			
Switzerland		*Abroad*		*Switzerland*		*Abroad*	
Vevey	1867			Cham	1866		
				Guin	1872		
						Lindau, Germany	1872
						Chippenham, UK	1874
				Gossau	1872		
				Flamatt	1877		
						Middlewich Aylesbury	1874
Bercher (condensed milk)	1880						
						Middletown (US)	1882
Edlitz-Grimbernstein	1883						
						Dixon (US)	1884
Payerne	1890						
						Hamar and Sandesund, Norway	1895
						Staverton (UK)	1897
						Sterling (US)	1898 (?)
						Monroe (US)	1899
						Walton (US)	1900
				Egnach	1902 (?)		
		Kap (Norway)	1897				
		Fulton (US)	1900				
		Tutbury (UK)	1901				
Neuenegg	1903 (?)						
		Hegge (Germany)	1903				
		La Penilla (Spain)	1905				

Annex 2 | NASCM/Nestlé Alimentana factories, 1906–70

Year	*Country*	*Location*
1906	Australia	Cressbrook and Dennington
1908	Australia	Toogoolawah
1912	Netherlands	Rotterdam
1916	France	Cherbourg
1918	Canada	Chesterville
1921	Brazil	Araras
1924	Belgium	Anvers
1925	Italy	Abbiategrasso
1926	New Zealand	Underwood
1927	Turkey	Ferikeuy
1927	South Africa	Donnybrook, Estcourt
1930	Argentina	Saavedra
1930	Cuba	Bayamo
1933	Portugal	Avanca
1933	Chile	Retiro
1934	Japan	Hirota
1935	Denmark	Copenhagen
1935	Yugoslavia	Pozega
1935	Mexico	Ocotlán
1936	Czechoslovakia	Krumlov
1936	China	Shanghai
1938	Panama	Nata
1940	Jamaica	Bybrook
1942	Peru	Chiclayo
1944	Venezuela	Santa Barbara
1946	Colombia	Bugalagrande
1952	Ireland	Letterkenny
1960	Zimbabwe	Salisbury
1961	India	Moya/Moga
1962	Trinidad and Tobago	Valsayn
1962	Malaysia	Petaling Jaya
1962	Ivory Coast	Abidjan
1963	Philippines	Alabang
1966	Nigeria	Nguru
1967	Kenya	Nairobi
1968	Tunisia	Carthage (Sidi Daoud)
1968	Singapore	Jurong
1970	Guatemala	Antigua

Annex 3 | Milk purchases, processing, and sales by Nestlé, the Anglo-Swiss Condensed Milk Company, and NASCM[1]

	Nestlé			*Anglo-Swiss*		
	Purchase	*Production*	*Sales*	*Purchase*	*Production*	*Sales*
1871		800/1,000 tins milk food daily Or 292,000 to 365,000 per year				
1873		2,000 tins milk food daily Or 730,000 per year	500,000 tins milk food per year			
1875		4000 tins milk food per day Or 1,460,000 per year				
1878 (?)	1,072 t of fresh milk transformed into condensed milk in Vevey					
1881					51,024 tins daily 18,623,760 per year	
1882					25,500,000 tins that year, half of which produced in UK	
1885				Cham 17,961,778 litres for the year	15 to 17 million tins of sweetened milk/ year	
1890		2.8 million tins milk flour 2.2 million tins condensed milk[2]				

Merger – 1905

	Purchase	*Production*	*Sales*
1906	Bercher factory: 1,249,185 litres in 1906		
1913	Cham factory: 38,500,000 kilogrammes of milk[3]		

Annex 4 | Milk production in Vaud, 1890–1904[4]

Year	*Milk production (litres)*
1904	1,535,295
1903	1,453,187
1902	1,550,465
1901	1,412,505
1900	1,434,310
1899	1,405,819
1898	1,347,035
1897	1,333,410
1896	1,284,595
1895	1,230,901
1894	1,104,214
1893	1,142,805
1892	1,310,429
1891	1,249,925
1890	1,342,492

Annex 5 | Swiss exports of condensed milk, 1877–1905[5]

	Quantity (kg)	*Price (Fr)*
1877	5,499,100	
1878	6,419,700	
1879	7,813,800	
1880	9,229,300	
1881	11,591,400	
1882	11,621,500	
1883	12,094,300	
1884	14,697,500	
1885		13,590,751
1886		13,344,249
1887		10,806,898
1888		11,306,038
1889	10,919,200	10,201,779
1890	13,434,000	13,244,942
1891	15,211,000	14,856,000
1892	15,522,600	15,075,641
1893	16,649,100	16,529,814
1894	19,187,400	18,944,779
1895	18,817,200	18,501,000
1896	18,636,500	18,366,000
1897		

(*Continued*)

(Continued)

	Quantity (kg)	*Price (Fr)*
1898	20,352,700	19,250,000
1899	22,091,600	20,805,519
1900	28,298,600	26,733,183
1901	30,724,600	28,941,266
1902	36,242,400	34,132,232
1903	32,991,700	31,455,996
1904	30,772,100	29,216,708
1905	30,658,900	28,590,034

Annex 6 | Pouponnière Nestlé budget and operations

Year[6]	*Expenditures*	*Income generated by fees*	*Shortfall covered by Nestlé*	*Number of boarders*	*Number of days serviced*	*Average duration of stay (days)*	*Cost per day per baby*
1937–38 (15 months)[7]			54,027.59	81		115	7.18[8]
1939[9]	55,906.81	20,916.35	34,990	92	10,373	113	5.39
1940[10]	63,088.15	23,303.55[11]	39,783.60	66			
1945[12]	79,486.14	32,006	47,480.14	87	10,973		
1946[13]	90,313.54	33,930.85	56,382.69	55	9,911		9.11[14]
1947[15]			56,108	70			9.73
1950[16]	128,210.18	59,453.28	68,756.90	68			
1952[17]	140,000		69,000	73		117	

Annex 7 | NASCM turnover and profit 1930–50[18]

Year	*Turnover (million Fr.)*	*Profit (million Fr.)*
1930	*	26
1931	*	21
1932	*	21
1933	*	21
1934	315	21
1935	*	20
1936	*	*
1937	*	*
1938	480	*
1939	*	*
1940	*	*
1941	*	17
1942	*	*
1943	*	*
1944	*	*
1945	679	*
1946	833	34
1947	1,034	*
1948	1,319	*
1949	1,379	*
1950	1,877	102
		* – unknown

Notes

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13 *Gazette de Lausanne*, 27 June 1947.
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Index