

Case Study

Self-sufficient agricultural schools: The case of Fundación Paraguaya

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Introduction

This case study analyses the self-sufficient school financing model for technical and vocational education pioneered by the non-profit social enterprise *Fundación Paraguaya* (FP). Specifically, it focuses on *Escuela Agrícola San Francisco* (EASF) in Cerrito, Paraguay, which five years after its launch in 2002, had become the world's first self-sufficient rural agricultural high school (Maak & Stoetter, 2012). The initial financing for EASF drew upon operational synergies, blending grants with revenue from FP's microfinance programme. In a second stage, it became a revenue generating and self-sustaining model through the provision of agricultural goods and services.

FP has self-sufficient agricultural schools (SAS) in 18 countries serving 3,000 students (HundrED, 2022). They are designed to address the lack of affordable quality and relevant education for rural youth and in Paraguay alone, the four SAS have successfully produced 97 rural entrepreneurs with many of these students going on to pursue higher education (Fundación Paraguaya, n.d.).

The problem

Across Latin America, high dropout rates in secondary education are a major challenge. Approximately 20% of youth between the ages of 15 and 24 are neither in school nor at work (World Bank, 2016). The low rate of youth participation in education is often caused by the inability of schools to equip students with relevant skills (UNESCO, 2015). The resulting effects on employability are disproportionately detrimental for poor and marginalised populations.

In Paraguay, at the time of EASF's establishment under FP in 2002, approximately 58% of the Paraguayan population was below the national poverty line and 15% of lower secondary school-aged adolescents were out of school (World Bank, 2020). Rural areas, in particular, face significant challenges, including:

- 1) **A lack of quality education** for low-income rural youth because the curriculum is not relevant to their needs;
- 2) **Limited resources** due to the unreliability of government subsidies and the inequity of funding that often relies on charging tuition, thereby excluding poorer students (Maak & Stoetter, 2012).

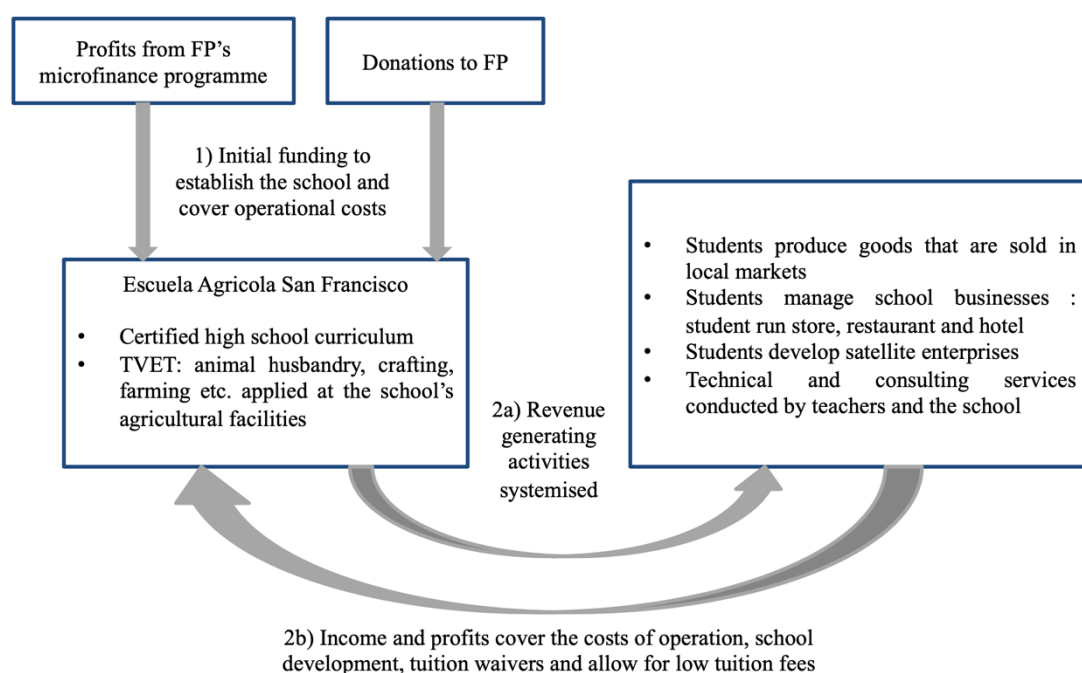
According to Maak & Stoetter (2012), traditional rural schools often fail to address some of the causes of rural poverty — “a lack of agricultural know-how, entrepreneurial skills, and access to financing” (p. 418). Succinctly put by FP's founder Martin Burt (2010), the problem that EASF attempts to address is “how to finance quality education when the government has no money?”

Self-sufficient agricultural schools

There are two elements to the SAS financial model as applied in EASF. The first pertains to early-stage financing (prior to self-sufficiency) and the second concerns the income-generating streams that support self-sufficiency. The financial model is illustrated in Figure 1 below.

Figure 1

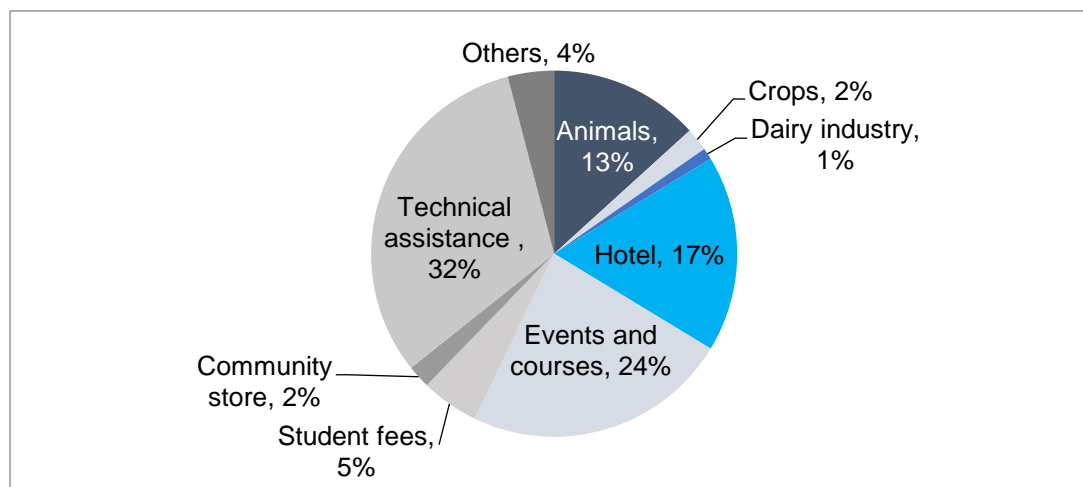
Financial Model of the Self-Sufficient Agricultural Schools



FP acquired EASF from a faith-based organisation in 2002, at a time when the government had cut back subsidies to the school, leaving it at risk of bankruptcy (Baird & Harrelson, 2008). Initially, FP used grant donations as well as surplus from its well-established microfinance programme to fund investments in the school. By 2007, the school had reached its goal of financial self-sufficiency through income-generating streams made possible by a curriculum that entails both academic and practical activities. Academically, students are provided with a certified secondary level curriculum alongside training for professional and entrepreneurial skills. Practically, students are taught animal husbandry, crafting and farming – skills that are applied within the school's agricultural facilities to produce goods that are sold in the market. Additionally, students have the opportunity to develop satellite enterprises or manage on-campus and school businesses such as student-run shops, restaurants, or hotels. These form a nexus of profitable operations together with technical and consulting services conducted by teachers and the school (Baird & Harrelson, 2008). The percentage distribution of income sources for EASF is presented in Figure 2 below. The total income generated covers all operating costs, enabling the school to become financially self-sufficient. It also allows for tuition waivers for the poorest students, promoting equitable access for poor and marginalised populations (Maak & Stoetter, 2012).

Figure 2

Percentage distribution of income sources for EASF (2007)



Source: Baird & Harrelson, 2008.

Results and feasibility of replication

According to Baird & Harrelson (2008), who draw upon available data from 2002-2007, all students of the EASF successfully graduated and productive engagement for all students occurred within four months of graduation (UNESCO, 2017). Students had become either rural entrepreneurs, teachers or were gainfully employed in the agricultural industry. Some students had also advanced to higher education. In 2007, the school had raised a total income of US\$253,016 which resulted in a net profit of US\$2,306. It was projected that the net profit of 2008 (beyond the scope of the available data) would have been US\$12,180 (Baird & Harrelson, 2008).

In 2012, FP had the goal of replicating the SAS model in 50 new schools, globally. As of 2022, FP has SAS in 18 countries serving 3,000 students (HundrED, 2022). According to Maak & Stoetter (2012), 65 organisations across 29 countries in the Americas, Africa and Asia had begun replicating (either fully or partially) the financially self-sufficient model, demonstrating the wide potential for the model to be adopted. However, there are certain challenges that could hinder the replication of the model. Firstly, the hesitancy over the “learning by doing” model used by SAS – a hands-on approach for learning key concepts of work readiness in which students spend half of their time in the classroom receiving relatively traditional instruction and the other half of the time spent being trained and mentored in relevant business skills and financial literacy. Additionally, a concern in regard to mixing education with business and revenue generation also poses a challenge to the replication of the model (Maak & Stoetter, 2012). Finally, the greatest challenge of replicating the SAS model is raising the initial capital investments required for establishing the schools. Nevertheless, this can also be seen as the model's greatest strength: it harnesses capital to produce a long-term self-sustaining model for vocational, rural schools.

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