Essay



# Accelerating Public Health Impact Through Public-Private Partnerships:A Case Study of the Cocoa360 Model

Shadrack Frimpong *, Nathan Gyang, Amy Gyang, Jaden-Benjamin Frimpong, Naa Enyonam Omane-Achamfuor

Posted Date: 6 April 2026

doi: 10.20944/preprints202604.0358.v1

Keywords: public-private partnerships; social determinants of health; community-based health financing; New Public Management; non-profit social enterprise; Ghana; global health

 doi:10.20944/preprints202604.0358.v1



*Essay*

# Accelerating Public Health Impact Through Public-Private Partnerships: A Case Study of the Cocoa360 Model

**Nathan Gyang [1,2], Jaden-Benjamin Frimpong [1,3], Amy Gyang [1,4], Naa Enyonam Omane-Achamfuor [1] and Shadrack Frimpong [1,*]**

[1] Cocoa360
[2] Orlando Science High
[3] Northeastern University
[4] Duke University
* Correspondence: shadrack@cocoa360.org

**Abstract**

Public-private partnerships (PPPs) occupy an increasingly prominent role in global health and development, yet their application within hybrid non-profit social enterprises operating in resource-constrained agricultural communities remains underexplored. This perspective piece examines how Cocoa360, a non-profit social enterprise based in Tarkwa Breman, Western Ghana, leverages its intermediate position on the publicness spectrum to advance health and education outcomes among rural cocoa-farming communities. Drawing on Bozeman and Bretschneider's multidimensional publicness framework and Hood's New Public Management (NPM) paradigm, this analysis argues that hybrid organizational structures can simultaneously exploit the efficiency advantages of private-sector management while preserving the equity mandates of public institutions. The Cocoa360 "farm-for-impact" model, in which community-generated agricultural revenues are reinvested in health and education services, offers a replicable framework for addressing structural social determinants of health in low-resource settings. The paper concludes by outlining a proposed PPP between Cocoa360 and the Ghana Health Service as a scalable mechanism for extending community-based healthcare financing to cocoa-growing communities across Ghana.

**Keywords:** public-private partnerships; social determinants of health; community-based health financing; New Public Management; non-profit social enterprise; Ghana; global health

## 1. Introduction and Organizational Background

Agriculture is the primary livelihood for a substantial proportion of rural Ghanaians, and cocoa farming is one of the country's most economically significant sectors. As the world's second-largest cocoa exporter, Ghana generates approximately USD 2 billion in annual cocoa revenues (Simoes, 2016). However, this macroeconomic productivity stands in stark contrast to conditions at the household level: the average cocoa farmer earns less than USD 0.50 per day, a figure that renders sustainable livelihoods structurally untenable (Simoes, 2016). Ghana's 1.6 million cocoa farmers, distributed across more than 1,300 cocoa-growing communities, consequently face entrenched cycles of poverty with cascading consequences for health and educational attainment (Wolter, 2007).

The relationship between poverty, education, and health is well established in the literature. The World Health Organization's Commission on Social Determinants of Health has documented that health inequities arise disproportionately from structural failures to address upstream determinants, including educational access, rather than from deficiencies in clinical service provision alone (WHO, 2008). Education shapes not only an individual's lifelong health trajectory but also their capacity to make informed health decisions across the life course.

 doi:10.20944/preprints202604.0358.v1



Ghana's Free Compulsory Universal Basic Education (FCUBE) policy, introduced in 1995 with the stated objective of achieving universal primary education by 2005, represents one governmental attempt to address this structural deficit (Akyeampong, 2009). Under the FCUBE framework, teacher salaries are publicly financed and tuition is waived for all students enrolled in public primary schools. Nevertheless, the policy fell short of its 2005 targets, largely because it failed to offset the indirect costs of schooling, including textbooks, uniforms, and transportation, that disproportionately burden households in remote rural communities (Nudzor, 2015). This implementation gap reveals a structural limitation in government-led educational financing that hybrid organizational models may be better positioned to address.

Established in 2015, Cocoa360 operates in Tarkwa Breman, a rural community in Western Ghana, and was designed explicitly to fill this gap. The organization pioneered a "farm-for-impact" model in which community cocoa farmers contribute labor to a collectively managed farm in exchange for access to tuition-free education and subsidized healthcare. Farm revenues are subsequently reinvested into community services through a tiered allocation framework that prioritizes expenditures according to community-identified needs, such as educational materials and essential medications. By addressing education and healthcare as interdependent social determinants rather than isolated service deficits, the Cocoa360 model reflects an integrated approach to community development rooted in established public health principles (Stack, 2017). A schematic representation of this model is provided in Figure 1.

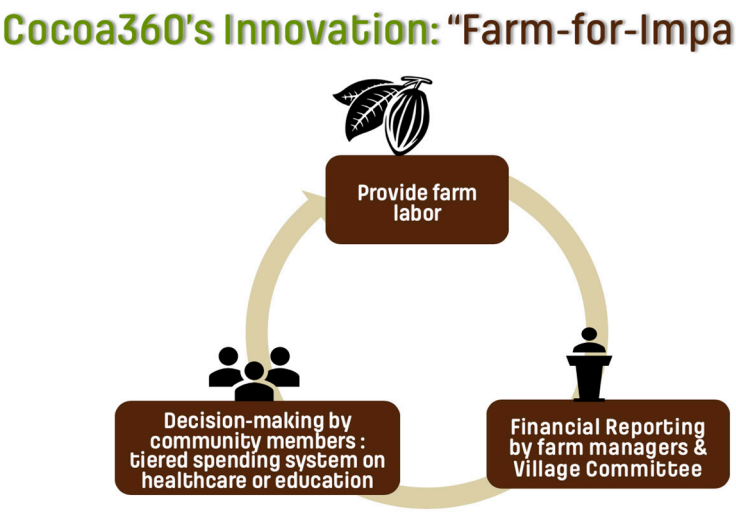


**Figure 1.** Cocoa360 Farm-for-Impact Model.

## 2. Organizational Publicness and the Structure of Cocoa360's Partnerships

Cocoa360's organizational architecture is productively analyzed through Bozeman and Bretschneider's (1994) multidimensional publicness framework, which disaggregates the concept of organizational publicness into four analytically distinct dimensions: ownership publicness, goal or agenda publicness, resource publicness, and communications publicness. As a registered 501(c)(3) non-profit social enterprise, Cocoa360 occupies an intermediate position across these dimensions, neither fully public nor fully private, a posture that confers distinctive structural advantages while also generating specific institutional constraints.

### *2.1. Advantages of an Intermediate Publicness Position*

Cocoa360's financial architecture exemplifies its hybrid status. The organization's girls' school operates as a non-revenue-generating service, while its farm and community clinic generate modest revenues through cocoa sales and subsidized medication charges, respectively. Per the Internal

 doi:10.20944/preprints202604.0358.v1



Revenue Service's non-distribution constraint governing 501(c)(3) organizations, all earned revenues are legally required to be directed toward mission-aligned social impact activities. This constraint effectively aligns organizational incentives with public welfare objectives, ensuring that surplus revenues are reinvested into the communities served rather than distributed to shareholders or private owners. Cocoa360's agenda publicness is therefore both transparent and structurally enforced.

With respect to ownership and resource-publicness, Cocoa360's community clinic occupies a genuinely hybrid position. The organization administers day-to-day clinical operations and allocates clinic revenues directly to operational expenditures, while the Government of Ghana maintains a parallel oversight role through periodic audits of clinical procedures and contributions of medical equipment and pharmaceuticals. The organization's school, by contrast, is managed exclusively through Cocoa360's administrative structure and staff. This differentiated ownership configuration affords the organization sufficient autonomy to pursue programmatic innovation, including curriculum design and the signature farm-for-impact service delivery model, that may be constrained within fully public institutional frameworks.

Cocoa360's partnerships extend beyond the public sector to encompass academic and civil society institutions. A collaboration with Vanderbilt University's Peabody College of Education, for example, yielded a health literacy curriculum specifically tailored to the community's context. In the domain of communications publicness, Cocoa360 has institutionalized transparency through the establishment of a Village Committee, a governance body that functions as a structured liaison among the organization's management, community leadership, and the broader village population. The Committee coordinates communal labor, provides informal technical advisory input, and ensures that organizational operations remain continuously responsive to community-identified needs (Ozor & Nwankwo, 2008). Additionally, as a 501(c)(3) registrant, Cocoa360 publicly files Form 990 financial disclosures, ensuring a level of fiscal accountability to donors, government counterparts, and the communities the organization serves.

### *2.2. Constraints of an Intermediate Publicness Position*

Notwithstanding its structural advantages, Cocoa360's intermediate publicness position also generates institutional constraints. Most significantly, the organization's non-governmental ownership structure renders it ineligible for certain government-administered programs predicated on public institutional status. For instance, Ghana's Ministry of Education administers a School Feeding Programme restricted to government-managed and government-funded schools; Cocoa360's school, as a privately governed entity, is categorically excluded from participation. Such eligibility constraints illustrate a broader tension within hybrid organizational models, wherein organizational flexibility and programmatic autonomy may come at the cost of access to publicly funded resource streams. Addressing these structural gaps may require policy reform to extend program eligibility criteria to mission-aligned non-profit providers demonstrating equivalent public benefit.

## 3. New Public Management Principles in Cocoa360's Operational Practice

New Public Management (NPM), a paradigm introduced by Hood (1991), advocates applying private-sector managerial techniques, including competitive contracting, performance measurement, and customer orientation, to public and quasi-public service delivery. Cocoa360's operational experience offers an instructive case study of both the efficiency gains and the equity risks associated with NPM application in community development contexts.

### *3.1. NPM-Aligned Practices and Their Benefits*

Cocoa360's implementation of borehole infrastructure on its campus illustrates the potential benefits of competitive third-party contracting, a central mechanism within NPM frameworks. Rather than contracting the project exclusively to the Ghana Water Company Limited—the state-owned

 doi:10.20944/preprints202604.0358.v1



monopoly provider in the borehole sector, the organization pursued a disaggregated contracting strategy. Clean Water for Everyone, a social enterprise headquartered in Accra, was engaged to conduct excavation; Takoradi Filtration Systems, a private-sector firm, was contracted to install filtration equipment and lay pipework; and the Ghana Water Company Limited was retained for water quality testing, including assessment of salinity and chloride levels. This competitive structure introduced incentives for performance and cost-efficiency across the supply chain. The outcome was the installation of two boreholes on campus, each with a daily production capacity exceeding 4,000 liters of potable water, an infrastructure investment with demonstrable implications for community health.

### *3.2. Limitations of NPM Application in Community Development Contexts*

The borehole project also exposed the inherent limitations of NPM approaches when applied in community development settings where social capital and local participation carry independent value. The competitive, market-driven logic underlying the contracting arrangement privileged technical and economic efficiency over community inclusion. As a consequence, opportunities to integrate the skills of local artisans into the construction process were not fully realized, potentially undermining community ownership of the infrastructure and limiting the depth of trust-building between Cocoa360 and community members. This outcome is consistent with Salamon's (1993) critique of welfare marketization, which cautions that for-profit actors embedded in competitive service delivery frameworks are structurally incentivized to optimize for market returns rather than social welfare.

A further limitation concerned the absence of standardized performance metrics applicable across heterogeneous contractors operating under different sectoral logics. The inability to construct uniform outcome benchmarks for civil society, private-sector, and public-sector partners rendered rigorous comparative performance evaluation difficult, a challenge analogous to those documented in the implementation of third-party governance under the United States' No Child Left Behind Act (Heinrich, 2010). These challenges underscore the importance of developing context-appropriate evaluation frameworks prior to initiating multi-sector contracting arrangements.

## 4. Scaling the Cocoa360 Model Through a Government Partnership

While the Cocoa360 farm-for-impact model was developed in a single rural community, its core architecture, leveraging community-generated agricultural revenues to finance health and education services, is conceptually transferable to analogous settings. The model challenges conventional international development paradigms by situating decision-making authority with the communities it is designed to serve, rather than with external funders or government administrators. A formal public-private partnership with the Government of Ghana could serve as a mechanism for this model to achieve broader application.

Specifically, a structured partnership between Cocoa360 and the Ghana Health Service (GHS) could enable Cocoa360 to assume management responsibility for Community-Based Health Planning and Services (CHPS) compounds or primary care clinics in rural cocoa-growing areas. Under such an arrangement, Cocoa360 would deploy its community engagement infrastructure to mobilize agricultural revenues from community-managed farms to offset patient user fees and subsidize essential medication costs. The adverse effects of user fees on rural healthcare utilization are extensively documented: user fees suppress demand for preventive and curative services, disproportionately among the rural poor, with measurable consequences for infant mortality, maternal health outcomes, and early detection of communicable and non-communicable diseases including malaria, HIV/AIDS, and cancer (Johnson et al., 2012). The Cocoa360 model's revenue-recycling mechanism offers a community-financed alternative to fee-based access barriers that is potentially more sustainable than donor-dependent subsidies.

 doi:10.20944/preprints202604.0358.v1



## 5. Conclusions

Ghana's macroeconomic growth trajectory, which has recently been among the strongest globally, has not translated proportionately into improvements in the welfare of the rural poor, who constitute approximately 68% of the national population (McDonnell, 2018). This disjuncture between aggregate economic performance and household-level wellbeing underscores the limitations of market-led growth as a mechanism for health equity and points toward the necessity of deliberate institutional interventions at the community level.

The Cocoa360 case demonstrates that hybrid non-profit social enterprises occupying an intermediate position on the publicness spectrum can serve as effective vehicles for community-responsive health and education programming, provided that partnership governance structures are designed with sufficient rigor and mission alignment. Several conditions appear necessary for such partnerships to realize their potential. First, robust monitoring and evaluation frameworks, ideally administered by independent third-party assessors, are essential for ensuring accountability and generating evidence for iterative program improvement (Bevan & Hood, 2006). Second, where multi-sector partnerships involve partners with heterogeneous organizational logics (market-driven firms alongside impact-driven non-profits and government agencies), explicit agreements on deliverables and mission-aligned outcome metrics are required to mitigate the risks of goal displacement and mission drift. The governance failures observed in the No Child Left Behind supplemental services context offer a cautionary analogue (Heinrich, 2010).

More broadly, the Cocoa360 model suggests that sustainable health financing in resource-constrained rural settings may require moving beyond the binary of government provision versus market delivery toward a third institutional form: community-governed, revenue-generating social enterprises with calibrated public sector linkages. Future research should examine the conditions under which such models achieve financial sustainability, replicate across contexts, and generate measurable improvements in health outcomes—questions whose answers carry implications not only for Ghana but for rural community health financing across sub-Saharan Africa.

## References

1. Akyeampong, K. (2009). Revisiting Free Compulsory Universal Basic Education (FCUBE) in Ghana. Comparative Education, 45(2), 175–195. https://doi.org/10.1080/03050060902920534
2. Bevan, G., & Hood, C. (2006). What's measured is what matters: Targets and gaming in the English public healthcare system. Public Administration, 84(3), 517–538.
3. Bozeman, B., & Bretschneider, S. (1994). The "publicness puzzle" in organization theory: A test of alternative explanations of differences between public and private organizations. Journal of Public Administration Research and Theory, 4(2), 197–223.
4. Heinrich, C. J. (2010). Third-party governance under No Child Left Behind: Accountability and performance management challenges in supplemental educational services provision. Journal of Public Administration Research and Theory, 20(Suppl. 1), i59–i80.
5. Hood, C. (1991). A public management for all seasons? Public Administration, 69(1), 3–19.
6. Johnson, A., Goss, A., Beckerman, J., & Castro, A. (2012). Hidden costs: The direct and indirect impact of user fees on access to malaria treatment and primary care in Mali. Social Science & Medicine, 75(10), 1786–1792. https://doi.org/10.1016/j.socscimed.2012.07.015
7. McDonnell, T. (2018, March 10). What's the world's fastest-growing economy? Ghana contends for the crown. The New York Times. https://www.nytimes.com/2018/03/10/world/africa/ghana-worlds-fastest-growing-economy.html
8. Nudzor, H. P. (2015). Taking Education for All goals in sub-Saharan Africa to task: What's the story so far and what is needed now? Management in Education, 29(3), 105–111.
9. Ozor, N., & Nwankwo, N. (2008). The role of local leaders in community development programmes in Ideato Local Government Area of Imo State: Implications for extension policy. Journal of Agricultural Extension, 12(2), 63–75.

 doi:10.20944/preprints202604.0358.v1



10. Salamon, L. M. (1993). The marketization of welfare: Changing nonprofit and for-profit roles in the American welfare state. Social Service Review, 67(1), 16–39.
11. Simoes, A. (2016). Ghana. MIT Observatory of Economic Complexity. https://atlas.media.mit.edu/en/profile/country/gha/
12. Stack, R. (2017). The effects of an NGO development project on the rural community of Tarkwa Breman in Western Ghana. Wharton Scholarly Commons. https://repository.upenn.edu/sire/47/
13. Wolter, D. (2007). Ghana: Seizing new agribusiness opportunities. OECD Report. http://www.oecd.org/dataoecd/35/30/41302232.pdf
14. World Health Organization. (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. WHO Press. https://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf