Food security in rural Mexico through poultry production

Anticipated transaction impact

Additional micro poultry farms launched by women in Sinaloa, Mexico

Pass (16/20)

| Credit score | Pass (20/28) | | | | |
|---------------------|--|--|--|--|--|
| Loan Overview | | | | | |
| Commitment limit | USD 120k | | | | |
| | 3-month grace period | | | | |
| Tenor and structure | followed by 45 monthly payments of principal and | | | | |

interest

8%, fixed

Financial Overview

Interest rate

Impact score

| 2021 Revenue | USD 667k | |
|-----------------|------------|--|
| 2021 Net Profit | (USD 108k) | |
| 2021 Net Assets | (USD 70k) | |

Company Information

| Legal name | Comercializadora Agroprecuaria Murlota SPR de RL de CV |
|--------------------|--|
| Incorporation date | March 2012 |
| Corporate address | Mexico City, Mexico |
| Nature of business | Poultry farming |
| Website | www.grupomurlota.com/ |

Shareholders

| Name | Share (%) |
|--------------------|-----------|
| Itzel Suarez Roman | 99% |
| Marta Inez Roman | 1% |

Company management

| Name | Nationality | Position |
|-----------------------------|-------------|---------------------|
| Itzel Suarez Roman | Mexican | CEO |
| Ing. Evelin Ríos Sánchez | Mexican | Eggs Manager |
| Ing. Fátima Gómez | Mexican | Farms |
| García | MEXICALI | Manager |
| Marta Román Sánchez | Mexican | Special Projects |

Recommendation

Approval of a \$120,000 loan based on Grupo Murlota's strong impact and adequate credit rating, contingnent upon securing \$60,000 of commitments from participants who will assume the first-loss position.



Grupo Murlota

Business overview



Grupo Murlota (GM) is a 10-year-old social enterprise that operates in the poultry industry. The business promotes income generation for rural Mexican women while simultaneously improving nutrition. To date, GM has helped over 40,000 women launch their own egg operations – from backyard installations for home consumption all the way up to commercial endeavors with flocks of more than 1,000.

GM began informally in 2005 and became a registered business in 2012. The enterprise generates revenue from two business activities:

- The sale of "poultry kits" (21%), and
- The commercial sale of branded Grupo Murlota eggs (79%).

GM is now seeking a loan to complete the construction of its third regional research center in Sinaloa. This facility will expand GM's reach to a new market (they currently sell in 20 of Mexico's 32 states) and will service a new, five-year contract with the government of the state of Sinaloa.

Started by Mayo Itzel Suárez Román, GM is creating a new model for food sovereignty and rural income generation by empowering disadvantaged Mexicans through an easy-to-operate home-based business. Grupo Murlota mainly serves women but also works with senior citizens and people with disabilities.

While most subsistence farming programs focus only on producing enough for family survival, Grupo Murlota supports its producers at every step of the supply chain from production all the way through marketing, drastically increasing their yields and their ability to sell their egg surplus to urban markets at a premium. This is achieved through a cooperative model.

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Impact background and delivery

Between 2018 and 2020, Mexico's poverty rate grew from 42% to 44% (56 million Mexicans), reflecting how the pandemic exacerbated a long-standing and significant problem in the country¹. Although the situation is significantly better than a decade ago, 13% of children under five still suffer from malnutrition.³

These challenges are deeply entrenched because of structural obstacles that prevent women from fully participating in the Mexican economy. A high rate of single mothers due to emigration, the termination of a federally subsidized childcare program in 2019, and institutional bias against women in the workplace have led to Mexico lagging the region for women in the workforce. "Fewer than half (44%) of working-age women aged 15 and older in Mexico participate in the labor force, compared with 78.5% of men in 2019."²

Eggs, meanwhile, are the world's most nutritionally dense food and a highly affordable source of protein. Mexico is the world's largest consumer of eggs on a per capita basis. Raising hens for eggs doesn't require a lot of land or significant capex investments. A poultry farmer can profitably manage a flock on a part-time basis. Farmers can also harvest seven eggs every ten days with a healthy hen, unlike cash crops, where they can only harvest once or twice per year. Best of all, the farmer's family can sell the eggs not consumed. No wonder Bill Gates said, "if I were in their shoes [living on less than \$2 per day], that's what I would do—I would raise chickens."

Grupo Murlota's primary activity is helping rural Mexican women launch their egg operation. GM accomplishes this by securing government contracts to serve hundreds of women at a time. In the past five years, GM has executed 7 contracts with 6 government agencies, delivering more than 3,000 farms.

Microenterprise Package (GM 35A)

MXN 19,000
1 casita
35 12-week old hens

10 12-week old hens

3 floor drinkers
1 hanging feeder

40 kg feed

Grupo Murlota provides its beneficiaries with mature, fully-vaccinated hens specially bred for rigor and egg production (breed stock from Germany and the Czech Republic). GM also provides a chicken coop, feeders, and water stations. Most importantly, GM trains its beneficiaries on all aspects of maintaining a cage-free flock in a country where 95% of commercial hens are raised in cages.

In 2021, GM delivered 31,500 hens to 900 women in the state of Hidalgo. They surveyed the beneficiaries and found out that:

- Before the project, beneficiaries spend about MXN 200 per month on eggs or 10% of the state's minimum well-being line
- 96% of the beneficiaries are producing at least 100 eggs per week from their GM poultry kit
- 63% keep the eggs for their consumption

We assess Grupo Murlota's impact to be Moderately High, with a score of 15 out of 20.

- We score Grupo Murlota Moderately High (3) on Depth and Breadth. GM focuses mostly on the most vulnerable
 and under-served populations, such as women and senior citizens in rural communities. GM provides
 meaningful positive changes in these beneficiaries by improving their food security. Furthermore, through sales
 and marketing training, GM breeds entrepreneurship in these communities and adds an alternative source of
 income to the family.
- NGOs and government institutions have approached GM to study and replicate its model, growing its impact to the national and international scale. For this, we are scoring GM under *Systemic Change*, Moderately High (3).

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¹ Poverty measurement 2016-2020 (coneval.org.mx)

https://globalnutritionreport.org/resources/nutrition-profiles/latin-america-and-caribbean/central-america/mexico/

Women in the Workforce: Mexico (Quick Take) | Catalyst

- GM is deeply committed to impact. Itzel, the CEO, has spent several years of her professional career in academic research understanding the disconnect between government agricultural programs and the beneficiaries' needs. However, it lacks a regular system that tracks the outcome it seeks. We score GM Moderately High on *Intention* (3).
- GM has accessed impact financing in the past. For this round, BR is the only impact-oriented funding available for the opportunity. We score the *Additionality* of this opportunity High (4).

Industry Overview

Mexico is the world's third largest producer of eggs, after China and USA. As mentioned earlier, it is also the top egg consumer per capita, with Mexicans consuming 379 eggs per year on average³. In fact, 5 of the world's top 25 egg producers in 2020 are in Mexico. These companies have between 10 to 34 million⁴ laying hens at any given moment, yet Mexico still imports eggs from the USA to meet local demand. The egg industry is continuously growing, with an average annual growth rate of 1.97% from 2008 to 2018. Projections show continued, albeit muted, growth at 0.5% CAGR over the next 30 years.⁵

Industrial producers like Proan, the top egg producer in Latin America, Empresas Guadalupe, and Gena Agropecuaria control most of the egg production in Mexico. However, consumer preferences are now shifting away from industrialized egg farming, considering how detrimental this method is to animal welfare and the environment. In Mexico, several brands have announced their goals to transition to cage-free eggs by 2025. These brands include <u>Grupo Bimbo</u>, a baking and food industry leader, <u>Toks</u> with almost 200 locations in Mexico, and Arcos Dorados, the McDonald's franchise holder in Mexico.

Company Overview

Management

Aside from the CEO, three out of the five critical managers of Grupo Murlota are women. Together with Itzel, women agricultural engineers lead GM's egg and farm operations. GM outsources its legal and accounting requirements to advisory firms. Pagés Abogados is GM's adviser for legal and other contract requirements, while Hoffman Brassdefer is GM's accounting firm. We score GM Moderately Low (2) under Belief in Management in the credit scorecard because of its young and shallow bench of managers. GM's growth plans highlight the urgent need to improve its governance structure.

| Ing. Fátima Gómez García Manager, Farm Operations | Fatima is an agricultural engineer with almost 5 years of experience in animal husbandry. Before Grupo Murlota, Fatima also built her expertise in raising rabbits and sheep. | | | | |
|--|---|--|--|--|--|
| Ing. Evelin Ríos Sánchez Manager, Egg Operations | Evelin's team is responsible for consolidating, packaging, and delivering the eggs produced by Grupo Murlota. She also trains the farm owners to market their egg production. | | | | |
| Itzel Suarez Roman Founder and CEO | Itzel is an entrepreneur, scientist, Ashoka fellow, and mother. She holds a degree in Animal Production, a Masters in Agricultural Sciences, and a Doctorate in Local Development and Territorial Innovation. She is an active member of key national organizations such as the National Agricultural Council, Food and Agriculture Organization (FAO), the Inter-American Institution for Cooperation on Agricultura (IICA), and the International Labor Organization (ILO). | | | | |

³ Global egg production grows by 3.5% | International Egg Commission

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⁴ The world's leading chicken and egg companies in 2020 | Poultry Industry (industriaavicola.net)

⁵ CONAPO: Proyecciones de la Poblacion Mexico p. 58

Supply chain

Grupo Murlota has two main lines of revenue:

- Farms: 20% of GM's revenues come from the sales of farm kits. These kits are sold directly to private businesses and individuals and indirectly through partnerships with NGOs and government units. In the last two years, GM has signed contracts with the states of Hidalgo and Sinaloa. Most of GM's gross profit comes from this line of business, with gross profit margins hovering around 40%-50%. GM is paid 50% in advance, with the rest collected upon completion of the kits.
- Eggs: 80% of GM's revenues come from selling eggs produced by its research center in Mexico City and eggs delivered by its larger farm customers. These eggs are aggregated and packed in Mexico City for distribution through Chedraui and Grupo La Comer, two of the four leading retail chains in Mexico. This business activity aims to provide enhanced income for producers rather than a meaningful contribution to GM's bottom line. The gross profit margin on these sales is minimal at about 10%, and GM collects payment up to 20 days after the invoice date.

Grupo Murlota purchases its farm components from leading poultry equipment suppliers in Mexico, such as <u>JAT</u>, <u>Novatec Pagani SA de CV</u>, and <u>SIJI Agropecuario</u>. The coops, designed by Grupo Murlota, are built in-house by contract employees on an as-needed basis. For the hens, GM has historically contracted a partner supplier that incubates and grows the chickens included in the farm kits. This supplier is in Mexico City, which proved to be a logistical challenge as they started to deliver to Sinaloa, about 1,300 km away.

As a result, GM decided to invest in its facility to grow laying hens. Grupo Murlota's third *Centro de Investigacion y Desarrollo de Nuevos Negocios Avicolas* (Investigation and Development Center for New Poultry Businesses) stands on borrowed land (see below) in Badiraguato and is GM's first commercial-scale hatchery. GM imported 500 hens and 200 roosters from the Czech Republic and has produced about 1,000 chicks weekly since August 2022. Two employees monitor GM's three incubators, and two monitor the hens' growth for four weeks.

Sinaloa Program

On May 9, 2022, the Government of the State of Sinaloa signed a 5-year Framework Collaboration Agreement with Grupo Murlota to carry out projects directed towards improving the quality of life and food security in the State of Sinaloa. The Sinaloa Government earmarked about \$280k in its 2022 budget for this first tranche. This order translates to 10,000 hens which GM needs to deliver to cities in Sinaloa by December 2022.

On July 14, 2022, the City Council of Badiraguato purchased a 39,400 sqm plot of land exclusively for Grupo Murlota's Investigation Center. Through a loan agreement, the Badiraguato City Government granted Grupo Murlota the free and temporary use of the property for fifty years, provided that Grupo Murlota uses the property solely for the research and development of new poultry businesses.

Financial Overview

Grupo Murlota was profitable pre-pandemic but has recorded net losses for 2020-2021. Nonetheless, GM has resumed recording net income in 2022 and expects to sustain this, given forecasted revenue growth from the sale of poultry kits and GM eggs. This will also be the primary driver for GM's debt servicing capacity. We assess Grupo Murlota's credit standing to be *adequate*, with a score of 20 out of 28.

Financial Performance

• Grupo Murlota has consistently expanded its topline by selling poultry kits and eggs. Revenues for 2021 grew by 32% to \$667k. Sales as of July 2022 have already reached \$593k, equivalent to a 53% growth on an annualized level.

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- The sale of eggs accounted for 79% of total revenues and generated a GPM of 9%. Grupo Murlota eggs are sold in major supermarket chains and city markets.
- Meanwhile, sales of farm kits (20% of total revenues) generated a much higher GPM at around 40%-50%. Major
 customers for the farm kits are municipal government units, NGOs, private companies, and individual clients. In
 2022, they also started delivery of poultry kits relating to the new, five-year Sinaloa program.
- Opex-to-sales ratio has been stable historically at 27% and has even improved to 19% as of July 2022. We believe that these stable margins reflect the enterprise's ability to manage costs while expanding revenues.
- Assumptions used in the forecast are as follows:
 - Poultry kits will make up 51% of revenues starting in 2023, based on GM's projections.
 - Gross profit margin to average 22% over the projected period, also based on GM's forecast.
 - For conservativism, we assumed overhead costs to sales to remain at 19%, based on the 2022 level.
- Grupo Murlota will sustain net income by selling its poultry kits. The Sinaloa Government has already placed orders for \$280k worth of farm kits for the first year of its contract. The pilot municipality in Sinaloa, where they are contracted to install only 100 farms, has already received over 400 applications. Although verbal, this is evidence of high demand for its farm kits. Itzel also disclosed that the Secretary of Sinaloa informally committed to multiplying this pilot project to 10 more municipalities in the next year. In addition, management is meeting with various government officials, particularly in the state of Campeche, to implement similar projects.

| | Historical | | | Forecast | | | | | |
|-------------------------------|------------|------|------|------------------|-------|--------|--------|--------|--------|
| PnL (in USDk) | 2019 | 2020 | 2021 | YTD July 2022 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Revenue | 390 | 504 | 667 | 593 | 1,017 | 3,402 | 3,742 | 4,116 | 4,528 |
| Cost of Sales | -222 | -403 | -576 | -341 | -584 | -2,640 | -2,904 | -3,194 | -3,513 |
| Gross Profit | 168 | 101 | 91 | 253 | 433 | 762 | 838 | 922 | 1,014 |
| Overhead costs | -101 | -127 | -199 | -114 | -196 | -656 | -721 | -793 | -873 |
| Net Profit | 66 | -26 | -108 | 138 | 237 | 106 | 117 | 129 | 142 |
| Financial performance metrics | | | | | | | | | |
| Annual revenue growth rate | | 29% | 32% | 53% | 53% | 234% | 10% | 10% | 10% |
| Gross profit margin | 43% | 20% | 14% | 43% | 43% | 22% | 22% | 22% | 22% |
| Net Profit Margin | 17% | -5% | -16% | 23% | 23% | 3% | 3% | 3% | 3% |

Figure 1 Grupo Murlota Historical and Projected Financial Performance

Financial position

- Working capital was negative in 2020 and 2021 due to the high level of trade payables and customer advances
 from installing poultry kits. Note that for the poultry kits, GM is paid 50% in advance. However, working capital
 has since turned positive in 2022 with the continuous installation of farm kits, particularly those relating to the
 Sinaloa Contract.
- The deficit from past years' losses wiped out equity in 2021, resulting in a negative D/E ratio. Nonetheless, we highlight that improved profitability turned the D/E ratio positive in July 2022, albeit still high at 5.22x. As GM is poised to continue its growth trajectory, we believe that its leverage position will also improve.

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| Balance Sheet (in USDk) | 2019 | 2020 | 2021 | YTD July 2022 |
|----------------------------|-------|-------|--------|------------------|
| Cash | 17 | 26 | 17 | 41 |
| Receivables | 286 | 38 | 86 | 138 |
| Inventory | 13 | 0 | 0 | 0 |
| Other current assets | 28 | 35 | 237 | 271 |
| Current assets | 344 | 99 | 341 | 450 |
| Current liabilities | 297 | 139 | 463 | 388 |
| Working Capital | 47 | (40) | (122) | 62 |
| Total assets | 344 | 161 | 393 | 462 |
| Total liabilities | 297 | 139 | 463 | 388 |
| Total equity | 47 | 21 | (70) | 74 |
| Financial position metrics | | | | |
| Debt-to-Equity (D/E) | 6.31x | 6.54x | -6.58x | 5.22x |
| Current Ratio | 1.16x | 0.71x | 0.74x | 1.16x |

Figure 2 Grupo Murlota Historical Financial Position

- The bulk of the current outstanding loan is with the Swiss Agency for Development and Cooperation (SDC), through its <u>Social Impact Incentives</u> (SIINC) <u>program</u>, amounting to \$25.2k and maturing in December 2023.
- Given the financial forecast, we believe that GM can comfortably service its debt moving forward, including the proposed loan with Beneficial Returns. With the significant improvement in profitability starting in 2023, DSCR will average 2.98x over the projected period.
- We recognize that GM's capability to service debt hinges on selling its poultry kits, the main driver of profitability.
 Our analysis indicates that GM has sufficient headroom before it encounters difficulty paying debt. For instance, break-even revenues for 2023, are at \$1.8M, equivalent to a 47% margin of safety from forecasted revenues of \$3.4M.

| Break-even Analysis (USDk) | 2023 | 2024 | 2025 | 2026 |
|----------------------------|---------|---------|---------|---------|
| Forecasted revenues | 3,401.8 | 3,742.0 | 4,116.2 | 4,527.8 |
| Cash break-even revenues | 1,804.1 | 1,235.8 | 1,235.8 | 1,235.8 |
| Margin of safety | 47% | 67% | 70% | 73% |

Figure 3 Grupo Murlota Break-even Analysis

Transaction Overview

Grupo Murlota is seeking a \$120k, 4-year term loan to continue the construction of its research center in Sinaloa. GM will incubate and grow hens to fulfill the Sinaloa contract in this research center. The loan will finance a prefabricated building and equipment to produce feed, including two vertical mixers. Because of the specialized nature of this equipment, we do not intend to secure ourselves with these items. Instead, Grupo Murlota has promised to add Beneficial Returns to the title of a 2019 Ford F-350 truck (\$20k acquisition cost) when the existing loan is paid in full in October 2023. We are approving this loan contingent upon receiving a 50% (\$60k) participation, where the participants will assume the first-loss position.

To secure this participation, Grupo Murlota has committed to providing ten additional women with poultry kits of ten hens each (plus chicken coop, watering and feeding equipment, and training). Beneficial Returns has identified the indigenous community in Puebla affiliated with Grupo Xaxeni as a worthy recipient of this "pay it forward" investment.

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Major risks and mitigating factors

| Risk | Risk factor | Probability | Risk mitigating factor | | | | |
|--|--|-------------|--|--|--|--|--|
| Unable to sustain revenue growth | Sinaloa government ends the partnership with Grupo Murlota | Moderate | GM has ambassadors traveling widely in Mexico to introduce its scalable programs. They have been actively seeking new contracts, particularly with municipal government units. GM has a track record of engaging NGOs and corporations that can be an alternative source of customers. | | | | |
| giowiii | Unable to source enough eggs to sell (historically, only the larger farms sell excess eggs to GM) | Moderate | There is an ongoing negotiation with farm owners in Badiraguato to sell their eggs to GM. GM has its in-house egg production where 20% of the eggs sold are sourced. | | | | |
| Key person risk | Any unforeseen incident that will lead to Itzel's absence may cause adverse effects on GM's operations | Moderate | ■ GM is aware of this risk and is currently recruiting a board of directors. | | | | |
| GM fails to meet payment obligations to BR | FX risk | Moderate | Since the loan will be denominated in US dollars, GM is vulnerable to FX risk since 100% of its customers are in Mexico. The Mexican peso has been one of the few currencies that has remained strong against the US dollar, mostly due to the Mexican Central Bank's aggressive policy stance. Last September 2022, the Central Bank raised benchmark rates again, causing an uptick in the value of the Mexican peso⁶. | | | | |

Conclusion

We recommend extending a loan of \$ 120k to Grupo Murlota, noting a high impact score and positive trends in its financial position. We are especially motivated by its focus on low-income women who have historically faced even greater obstacles to stable livelihoods and launching businesses. We have great confidence in Itzel's commitment to this work and her ethics; she is the type of resilient social entrepreneur we aim to support at Beneficial Returns.

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⁶ USD/MXN Forecast | Will USD/MXN Go Up or Down? (capital.com)



Appendix 1: Grupo Murlota Impact Assessment

Impact score: 16 out of 20

Prospective borrowers are rated with 1 point for Low, 2 points for Moderately Low, 3 points for Moderately, and 4 points for High. Minimum score of 14 for approval.

| | | Moderately | | | | |
|---|--|------------|-----|------|------|-------|
| | | Low | Low | High | High | Score |
| 1 | DEPTH AND BREADTH Is the breadth of impact wide, relative to the current size of the org? How meaningful are the changes to the beneficiaries? Are the beneficiaries truly excluded and marginalized? | | | • | | 3 |
| 2 | SYSTEMIC CHANGE Is the social enterprise focused on systemic change? Is the social enterprise directly driving policy change or serving as an example to the industry and its peers? What behavior change has taken place? Do the beneficiaries become dependent on the social enterprise? | | | • | | 3 |
| 3 | community engagement Does the social enterprise engage all stakeholders in their work? Is the social enterprise building local, human resources? Does it actively share its insights with others? Are indigenous communities involved? | | | • | | 3 |
| 4 | INTENTION How committed to its social or environmental mission is the social enterprise? | | | • | | 3 |
| 5 | ADDITIONALITY Is Beneficial Returns' investment crucial to the company's goals related to the loan? | | | | • | 4 |
| | TOTAL | | | | | 16 |

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Appendix 2: Company Name Credit Assessment

Credit score: 20 out of 28

Prospective borrowers are rated with 1 point for Low, 2 points for Moderately Low, 3 points for Moderately, and 4 points for High. Minimum score of 20 for approval.

| | Moderately | | _ | | |
|---|------------|-----|------|------|-------|
| | Low | Low | High | High | Score |
| 1 BELIEF IN MANAGEMENT Does the social enterprise have a strong management team (extensive industry experience, strong leadership, and entrepreneurial background)? Is the governance structure adequate? | | • | | | 2 |
| 2 ACCOMMODATIVE BUSINESS ENVIRONMENT Is the social enterprise operating in an industry with low level of competition? Does the social enterprise provide products or services that have low threat of substitution? | | | • | | 3 |
| 3 QUALITY OF FINANCIAL INFORMATION Can the financial information provided be depended on? Has its financial statements been audited? | | | • | | 3 |
| 4 ABILITY TO BE PROFITABLE Does the social enterprise have a positive earnings trend? Are the earnings sustainable? | | | • | | 3 |
| 5 STRENGTH OF FINANCIAL POSITION Does the social enterprise maintain adequate financial ratios (DSCR, Debt-to-equity, Current ratio) to support a debt obligation? | | | • | | 3 |
| 6 ABILITY TO SERVICE DEBT Does the social enterprise have the ability to establish a strong cash position to meet its debt obligations on time? | | | • | | 3 |
| 7 COLLATERAL OR GUARANTEES Is there collateral for the loan with an adequate loan-to-value amount? Is there a guarantor for the loan? | | | ~ | | 3 |
| TOTAL | | | | | 20 |

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