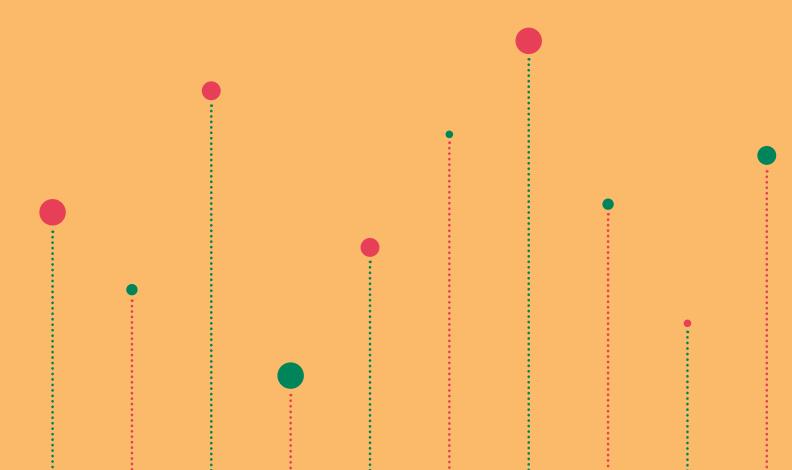




SOWING TRANSITION

CASE STUDY



Sowing Transition: Case Study

2024

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The Sowing Transition project results from a close and equitable collaboration between the organizations Organización Familia Pasta de Conchos, Conexiones Climáticas, and Mexico's Climate Initiative (ICM). This process would not have been possible without the generous participation of the general direction of the Scientific and Technological Studies of the State of Coahuila (CECyTEC) and the administrations of the Barroterán and Palaú campuses. We appreciate their willingness to walk this path together.

CONEXIONES CLIMÁTICAS
MIGUEL A. TORRES CRUZALEY
OCTOBER 2023

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IT WILL BE WITH SEEDS

:

Were responsible for seeking "solutions."

We cannot sit back and wait for a solution because this is not merely an emissions problem or the result of a few bad practices affecting many, but rather a model that reproduces and grows from dispossession and the brutal exploitation of nature. It is futile to wait for a new technology from a laboratory in Europe or the US, or a megaproject that will "save" us from ourselves. There is no miraculous proposal to avert the apocalypse.

For too many years, the earth and its people have been sacrificed. Mountains were plundered and turned upside down, leaving immense craters in one place and new hills of dust and debris in another. Rivers became drains, ceasing to flow even during rains, and children were taught that stagnant water was synonymous of disease or death due to the poison poured into it. Thus, the meaning of the origin of life was changed for us; water became death and the earth an enemy that claims lives like a malevolent goddess, whom we can only defeat by extracting fossil fuels and minerals.

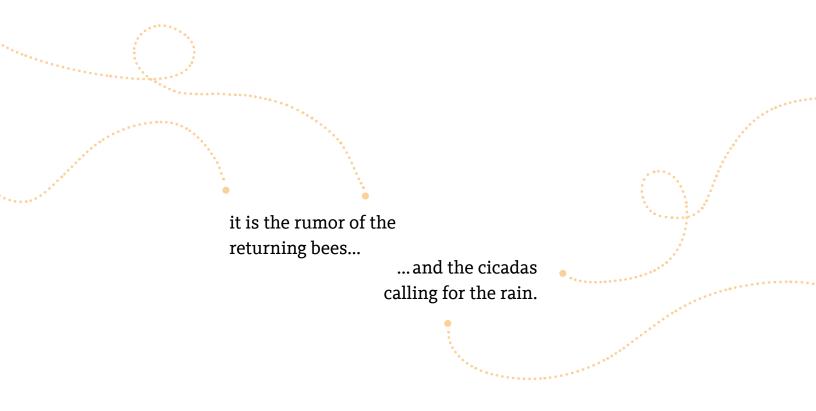
A war was declared against the earth in the name of progress, development, and economic growth. Without asking how or for whom it should be done, they spoke and decided without us, without the girls and boys. As in any war, those who ordered it did not put their bodies, blood, or health on the line; they only profit and enrich a few.

Therefore, the answers will not come from those who dragged us into this devastating war, nor from a company promising investment, nor from a ruler, never from outside, but from those of us who believe that Life is always possible. It will come in the form of alternatives, many of them, the more the better,

because hope has memory and recalls the places it inhabited, reclaiming them like water returning to its course. Hope is a seed in the hands of a young person who has never farmed but remembers their grandmother's garden; hope is energy that does not sacrifice the earth but draws from the sun to sustain life; hope is murals of painted flowers by people daring to dream.

The answers come from those who reconcile with the Earth to understand it as the sustenance of life, moving in the opposite direction of exploitation, slowly healing what others have broken with new inexplicable forms and ideas that challenge what they declared impossible. It will be with gardens that cultivate not only tomatoes and chard but also new conversations, abundant with fruits of ideas, fertilizing the soil with possibilities for change, and whose roots crack the stories that named us expendable.

Listen...



EXECUTIVE SUMMARY

The Coal Region in northeastern Coahuila has been turned into a sacrifice zone as a result of almost 200 years of coal mining exploitation. From this territory, 99% of Mexico's coal is extracted and processed to generate only 3% of the country's energy while emitting 10% of the nation's energy polluting emissions.

The mining industry has had fatal implications for both the population and the territory. For miners and their families, it has been a story of job insecurity, death, and sacrifice. For the environment, it has meant devastation and alteration of both climate and ecology: natural resources have been used for the coal industry, leading to river and air pollution, while tons of mineral waste outline the landscape.

Despite being the economic support for around 3,000 families, the days of coal are numbered: the lifespan of coal-fired plants will end in less than 10 years. If urgent actions are not taken, there will be nothing left behind after the industry closes.

As a result of so many years of extraction and exploitation, a multidimensional crisis has been generated with concrete and daily impacts on the population. Two of these dimensions—through which we decide to look and address our work—are the environmental and climate crisis generated by the fossil fuel paradigm.

In addition to climate and environmental implications, there is a crisis of imagination and future in the region due to the monolithic structuring of life around coal. Throughout this time, the Coal Region has been condemned to a single function—mining "for the benefit of national progress"—where only men have a place. So far, anyone or any idea outside of these parameters has been denied the opportunity to flourish, to imagine, to narrate, and to materialize a different story.

With these elements in mind, in a joint initiative of the Organization Familia Pasta de Conchos (OFPC), Conexiones Climáticas, and Mexico's Climate





Initiative (ICM), we implemented the first stage of the "Sowing Transition" project to initiate actions that contribute to changing the narrative of coal and mining as the only possibilities in this territory and thus encouraging imagining, naming, and materializing more dignified ways of life.

We have done this with the conviction that building alternatives for a territory like the Coal Region must be approached from the perspective of Just Energy Transition. This means that any effort to transition to sustainable and renewable energy generation schemes must ensure that the people inhabiting the territory guide the conversations and actions. This involves creating the necessary spaces for aspirations to emerge and allowing them to name and envision themselves on their own terms.

To ensure this, we chose to distance ourselves from traditional coal spaces. Therefore, we built an alliance with the Colleges of Scientific and Technological Studies of Coahuila (CECyTEC) in the towns of Barroterán and Palaú. We chose to do this because it is where young people study who, until now, have not been given alternatives.

Specifically, the project has worked on four actions:

Mural Painting

To imagine and represent the territory in different ways from the current ones and communicate this to the community.

Installation of Agroecological Gardens

As a mechanism to transform the relationship with the land and territory. In a region where the relationship with nature has meant death, there is now the possibility of obtaining life-giving food from it.

Installation of Solar Panels

To materialize and demonstrate the viability of energy alternatives beyond the fossil fuel paradigm.

Course on Climate Crisis and Just Energy Transition

To cultivate a critical and hopeful perspective that can integrate the imagination and actions with the concrete references of the panels and gardens as alternatives.

More than ends in themselves, we understand these activities as means to communicate alternatives that counter narratives of sacrifice, death, sterility, and coal extraction. They are pretexts to explore new ways of relating to the environment and communities.

Ultimately, we dream that this project demonstrates the urgent need for the decisions about these territories to be in the hands of communities and rooted in their daily lives, allowing their own narrative in confronting the climate crisis and establishing more just relationships with their territory and community.

We dream and hope that our experience becomes an example that serves other territories sacrificed by fossil fuel extraction to build their own paths. It is urgent and it is possible.



CONTEXT:

COAL AND THE CARBONIFEROUS REGION¹

66

After Pasta de Conchos, there continue to be deaths, and there is a lot of impunity. No one is punished, and no one is held accountable for the miners' deaths. It's easier to pay fines. In the end, those responsible say, 'they won't do anything to me,' and the businessmen invest even less in safety and are allowed to continue doing it. So you ask, how can they always find a way to evade their responsibility?

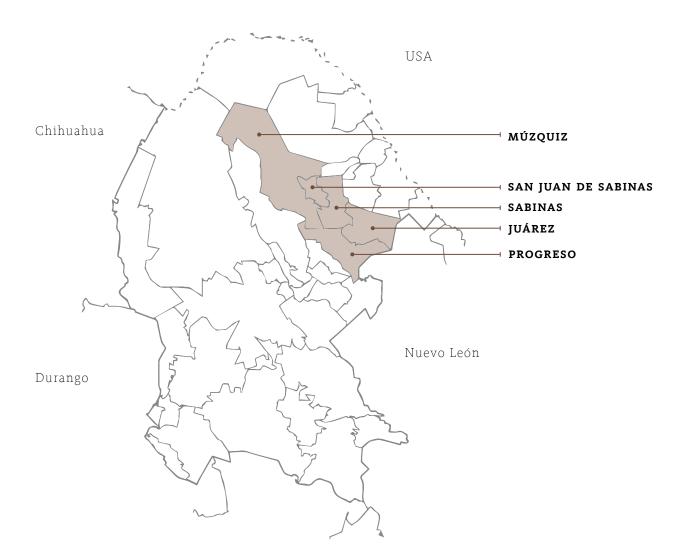
"

ELVIRA MARTÍNEZ, widow of Jorge Bladimir Muñoz Delgado, who is deceased and still trapped in Pasta de Conchos.

¹ For a broader analysis of the region and the implications of mining, please refer to the "Carbón Rojo" report prepared by the Pasta de Conchos Family Organization.

² In 2006, due to inadequate safety and hygiene measures, a section of the Pasta de Conchos mine exploded, trapping 65 miners inside. Contrary to the tradition of rescuing miners, and with excuses as ridiculous as offensive — such as claiming that the water inside the mine was contaminated with AIDS — Grupo México, with the complicity of the federal government and the miners' union, suspended the rescue operation after recovering two bodies. Eighteen years, four presidents from three different political parties, and dozens of unfulfilled promises later, 63 miners await rescue.

To the northeast of the state of Coahuila lie the municipalities of Progreso, Juárez, Múzquiz, Sabinas, and San Juan de Sabinas. These municipalities are home to 180,000 people. They are reached by a road that traverses a mountain range that could not have any other name: La Muralla (The Wall). Behind this mountain range, for the past 200 years, a few entrepreneurs and owners of a handful of companies have reduced the lives and deaths of its inhabitants to a single idea, to a single possibility: coal.



COAL IN NUMBERS

Produces

3 %
of the country's energy.

10%
of Mexico's polluting emissions in energy generation.

The
TWO
active coal-fired power
plants will cease
to operate in less than
TEN

years.

More than

3,000

miners have died in

200

years of mining
history.

From this region, called La Carbonífera, 99% of the country's coal is extracted. This is primarily done to generate energy in the two coal-fired power plants operating in the area, which are owned by the Federal Electricity Commission (CFE). Another portion was used for steel production in the coke plants³ of Altos Hornos de México (AHMSA) and by cement companies such as Cemex and Apasco.

This is a multi-billion dollar business in decline that has enriched a few and upon which, without many other options, 3,000 families depend directly and more than 11,000 indirectly.⁴

We are talking about a sector that survives on myths and has an expiration date. Currently, the installed capacity for coal-fired electricity generation accounts for only 3% of the country's electricity. On the other hand, Mexico has commitments to phase out coal-based energy production by 2030, and the operational lifecycles of the two coal-fired power plants will end by 2033.

This industry has operated through a complex network of interests and complicity between government, business owners, and unions. At different times in history, it has found justifications for its existence: it has been said to be the engine of the Revolution, that coal was used to make the steel that modernized the country, and that it is a fundamental part of reclaiming na-

³ For the production of steel, coal undergoes a washing process to obtain what is known as "coke."

⁴ Adiós Carbón, available on: https://adioscarbon.org/

tional energy sovereignty. All this comes at the expense of the devastation of the territory and the people who inhabit it: mining has turned the region into a Sacrifice Zone. A place where life does not matter.

SACRIFICE ZONE



is a territory that has been devastated as a result of an economic activity that prioritizes its economic benefits over people and the environment.



Mounted on the paradigm of energy generation from fossil fuels, mining companies have devastated the ecosystem in the process of coal extraction and transformation. They retain only what serves their economic interests from the land. The rest accumulates in artificial mountains called spoil tips that stretch for kilometers, exposing large amounts of methane, sulfur, cobalt, and radium. Water —in a semi-desert region— is used to wash coal while its residues contaminate riverbeds. The chimneys of coal-fired power plants pollute the air of the region and significantly increase the country's total emissions: currently, the two plants emit 10% of Mexico's energy sector greenhouse gas emissions, but it has been as high as 20%.

For miners and their families, far from promises of progress, development, and well-being, mining is a story of rights violations, denial of the future, oblivion, and death. Although extraction can occur in different types of mines and at different scales, in all of them, miners know they will enter, but they never have the certainty of whether they will come out.

Nevertheless, the dominant narrative, fueled —and even paid for— by companies and authorities responsible for ensuring dignified and safe conditions for workers, has been to blame miners for their own deaths, "glorify" them as heroes sacrificing⁵ themselves for national development, or perpetuate the "poetry of the tavern" that dictates that it is nature that claims lives in exchange for coal.



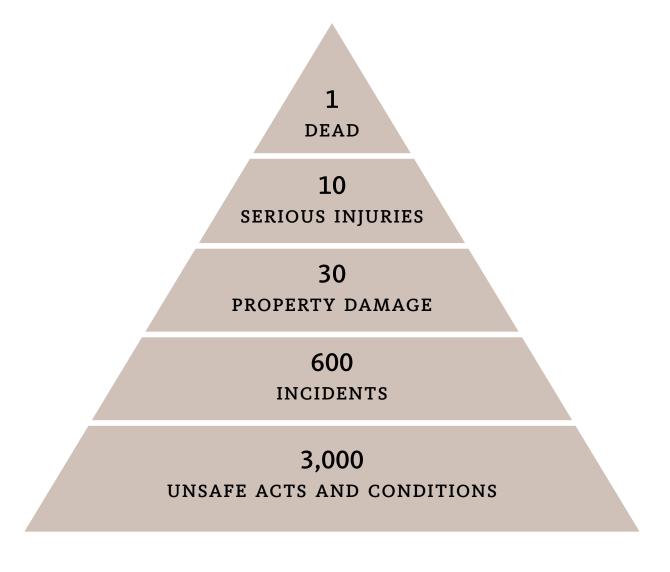
Thanks to the work of civil society organizations like OFPC, we know that in 200 years of mining extraction, more than 3,000 miners have died. The vast majority of these deaths have been due to poor safety and hygiene conditions within the mines or due to perverse payment schemes that force miners to seek higher income at the expense of their safety.

The path of civil society to access justice and truth has been a journey that has involved a process of denaturalizing death in coal mines, changing the narrative around it, and social organization.

For example, the term "accidents" was discontinued to describe the tragic events that occur within the mines; instead, the term "incidents" is now used. This might seem like a minor change, but an accident implies something fortuitous, often unavoidable, with diffuse or non-existent responsibilities. What happens in the mines is far from that. Most fatal incidents or those resulting in injuries —minor or severe— have specific chains of responsibility behind

them and could have been prevented. For example, according to figures from the report "El carbón rojo de Coahuila: aquí acaba el silencio," in AHMSA's coal mines, for every miner who dies, there are 10 serious injuries, 30 property damages, 600 incidents, and 3,000 unsafe acts and conditions.

In addition to this, the implications of mining work on miners' health have been highlighted. According to records from the Mexican Social Security Institute (IMSS), Coahuila has the highest number of individuals with permanent disabilities. In most cases, this is due to diseases linked to work in coal mines: black lung disease, hearing loss, and back problems. However, the starkness of the data does not show the complete reality: in 50% of fatal incidents occurring after Pasta de Conchos, miners were not registered with the IMSS. In this scenario, it is women who take care of those injured in accidents.









POCITO, a vertical shaft mine from which coal is extracted by lowering workers with a pulley system using vehicle engines. They are considered the most dangerous form of coal extraction and have therefore been banned in most countries.

Recently, all AHMSA facilities were closed, bringing unemployment and uncertainty to the region. This has also pushed miners to work in small pits and caves, which are often illegal or clandestine, posing greater risks to their safety. In this context, without new enterprises and alternative livelihoods being generated, many towns in the region will become ghost towns.

In a region where, over 200 years, no alternatives to mining have been designed —let alone implemented— miners and their families are trapped in the paradox of wanting the reopening of companies that have taken everything from them.

For the adult population, life in La Carbonífera seems to remain tied to a single idea, a single possibility: coal.

WHAT CRISIS ARE WE TALKING ABOUT??6

"

Part of the crises we see and work with are crises of future. It is the younger people who will live and deal with them for longer if we do not resolve them [...] the moment that these young people are in is rich in possibilities because they are seeking future options in a context that offers them futures that are poor in possibilities.

"

JUAN MANUEL OROZCO

⁶ For a more comprehensive analysis of the multidimensional effects of the coal industry, please refer to the 'Assessment of Socioenvironmental Impacts of the Progressive Reduction of Coal Consumption for Electricity Generation in the Carboniferous Region of Coahuila,' published by ICM and the Centro de Colaboración Cívica.

The conjunction of elements and impacts resulting from the coal industry has created a critical situation for the territory and its inhabitants. It is a multidimensional crisis that manifests in different ways and has specific and differentiated impacts on people's lives; that is, its effects are experienced—and suffered—differently depending on whether one is a miner, a woman, or a young person.

One of the most evident features of this situation is the environmental crisis caused by the destruction of the environment. Mining exploits the territory in a way that harms those who work in it; it contaminates rivers and the air and disrupts the natural cycles that sustain life in the region.



This is a crisis that encompasses dimensions of climate, environment, economic, labor, human rights, and the negation of the possibility to imagine and to have a future.



On the other hand, the climate crisis and coal are deeply interconnected. Coal is the primary source of polluting emissions on a global scale. In this region, climate change is experienced through temperatures rising above 40°C in summer, accompanied by increasingly prolonged droughts.

The insolvency process of AHMSA and the closure of mines have led to a growing economic and labor crisis, adding to the historical and systematic violation of the human rights of miners and their families. The limited investment in infrastructure and economical alternatives to mining presents a bleak scenario for the near future of the communities.



Altos Hornos de México, one of the main destinations for coal in the coal region. Currently without operation.

Due to the hegemonic and monolithic narrative imposed in the region through a single employment reference, other ways of life are prevented from emerging and taking root. This generates an imagination crisis that also translates into a crisis of future: faced with the decline of coal, there are no transition processes in La Carbonífera.

Historically, there has been a void in social organization to counteract the elements of the crisis. This is not a coincidence. The organization of life around mining has been based on three rigid ideas of extraction and exclusion: 1) that it is a world only for men (very tough men), 2) the territory is fit for nothing other than mineral extraction, and 3) that it generates the energy that moves the country. Not only has coal been extracted from the earth, but also the desire to fight.⁷

La Carbonífera has been condemned as a sacrifice zone for "national benefit." However, amidst the ecological and social disaster, a vein of hope has opened, one worth following and exploring deeply: the organization of people.

Efforts such as those of OFPC have meant dignified acceptance that the narratives and actions that will lead to transitioning from the current crisis to life projects must be imagined and implemented from within the region and by its inhabitants. It is a task that does not seem easy but is much simpler when done with the participation and attentive listening to the voices of those suffering from the crisis, especially those whose protagonism has been denied.



The water of this semi-desert is constantly contaminated by mining activity.

SOWING TRANSITION: BUILDING OTHER NARRATIVES

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The desert is a noble territory. It may seem harsh and tough, but when it rains for an hour, the next day flowers bloom, greenery sprouts, and seeds that have been dormant for years come to life. Its population is similar: when they receive a little rain, desires and plans sprout forth

"

PABLO MONTAÑO

In the auditorium of the technical high school in Palaú, sixty or seventy students listen as the team from Conexiones Climáticas, ICM, and OFPC talk about the climate emergency and the implications of coal mining for the region. During the presentation, the male students are asked, "Who wants to be a miner when they grow up?" Only four raise their hands. Then they turn to the female students and ask, "Who wants to be a miner's wife?" Only one hand is raised. Ten years ago, the result of the survey would have been different: everyone would have raised their hand.



Far from being an innocent anecdote, the exercise reveals the complex territorial reality where life and work possibilities no longer align with the desires and aspirations of those who inhabit it. The response from young people raises fundamental questions that are difficult to answer: What does a historically mining territory have to offer to those who no longer want to go into the mine because they know it only leads to death and poverty? What alternatives exist for a region that knows nothing other than coal mining?

To address these questions, it's necessary to proceed slowly, taking care with each step and listening attentively to everyone. The path must be charted with the recognition that those experiencing the crises hold the future in their hands, driven by the desire to build life. The first step is something seemingly simple yet incredibly powerful: reaching different ways of imagining, naming, and living in the territory.

We've structured the project around the axis of climate action with the clarity that one of the main causes of the climate crisis is an economic model that dominates and uses fossil fuels like coal. Therefore, if we want to confront this crisis, we need to move away from that model. However, in a region like La Carbonífera, it's problematic to want to do so at all costs because there's a risk of once again negating the people and communities turned into sacrifice zones.

That's why we talk about a Just Energy Transition; a gradual process aimed at leaving behind fossil and extractive industries to transition to sustainable and renewable energy generation schemes, while ensuring that the desires and capacities of the people inhabiting those sacrificed territories are integrated. It's essential that they guide the conversations and define what they want for themselves and their communities. This must be done while continuing to demand justice and reparations for the damages caused.

From this perspective, we've proposed and developed the "Sembrando Transición" project. We've done this with the clarity that it's not possible to abruptly stop mining because thousands of families depend on it, and so far, economically viable productive alternatives do not exist in ideas or practice.

Instead, like in planting, we must first prepare the ground. Therefore, we've created spaces that allow people to come together and share desires and aspirations. We've done this with the intention that people speak in their own voice about how they see themselves and their territory.

"When we arrived to the region, there was nothing in terms of environmental issues; nobody had delved into working on the topic from a climate perspective or energy transition standpoint [...] we began to establish a connection with the territory with the intention of becoming more involved. In technical terms, we could have done what is typically done: sit at a desk, analyze international policy recommendations, compile a document, and come in saying, 'this is how a just energy transition should be done.' Instead, we decided to do the opposite: try to build the concept of a just transition from the ground up"

Rafael Fonseca · ICM

To do this, it has been important to distance ourselves from the ideas and spaces of coal; involve and listen to the people whom the industry has excluded, and occupy spaces that are not under mining dispute. Thus, the project was envisioned in workshops where we sought the participation of women and agreed to approach schools to work with young people.

In this initial approach, it was decided to work on three ideas that would allow the conversation to continue and provoke organization. Specifically, it was decided to create agroecological gardens, send messages to the communities through murals, and install solar panels in high schools.

These three actions (gardens, murals, panels), more than ends in themselves, are means to communicate alternatives; to confront and cancel narratives of sacrifice and death, sterility, and coal extraction. They are pretexts to explore new ways of relating to the environment, enabling much more dignified life alternatives than those involving coal.⁸





CECyTEC

"It was the parents 25 years ago who made us see that they did not want their children to continue on this difficult and dangerous path of mining. They wanted them to be agents of change [...] to have different opportunities. For them, mining is a very dangerous activity, where they wake up, leave their homes, and don't know if they will return."

LETICIA GARCÍA OLGUÍN

Principal of CECyTEC Barroterán

The Colegios de Estudios Científicos y Tecnológicos de Coahuila (CECyTEC) were created as "an educational alternative (high school) to provide technological training to young people who [...] otherwise would have found it very difficult to receive high-level professional training". Like other technical training institutions, CECyTEC offers study programs linked to the industrial sectors existing in the region.

With a network of campuses covering the entire Coahuila territory, over 18,000 young people study at these colleges, representing almost 20% of the high school student body in the state. Thus, the connection with CECyTEC within the project framework offers a broad horizon for expanding the work and is strategic due to the opportunity to engage with young people.

The potential for CECyTEC to become seedbeds of change in environmental and energy matters is significant. The opportunity to emerge here with a different perspective of the territory through reimagining education cannot be missed. With the collaboration of directors, teachers, and communities, projects can be implemented to link the school and its activities with the transformation of the towns.

Paint to imagine

"Before starting to paint, we shared our ideas. That nature is for everyone, that it helps the economy and gives us life. A classmate says that nature is the source of life and another tells us that we must take care of it, protect it, and conserve it [...] I would like to see the change from that black and brown turning into green, into the colors of the flowers."

ESTRELLA O.

Student of CECyTEC de Palaú

If the first step to building alternatives and different ways of naming the world is to imagine them, then we must think of different ways to do so. It seems simple, but in contexts where only one way of understanding reality has been established, the challenge is significant.

Something that might seem straightforward, like painting a mural, can be novel and profoundly meaningful. Thus, one of the proposed actions agreed upon with the high schools was just that: creating murals inside and outside the schools.

This action serves at least three objectives. Firstly, it invites students to imagine and represent their territory differently and how they want to see it in the coming years.

Secondly, it becomes a different space for sharing and learning. Thinking collectively about the design and message of the mural requires agreements and dialogues that would be difficult to achieve otherwise among the students. When painting, talents are discovered and recognized, bonds of trust and friendship are playfully woven with classmates, and a sense of community is created: the canvas is not just the wall but also the minds, bodies, and territory.

In addition to what happens within the high schools and among the students, murals send a message to their community that there is a desire and urgency for change. They serve as a mechanism to discuss other topics that interest young people, such as what they experience and what happens in their towns. The murals capture images related to the daily

lives of families and convey phrases that invite a reconsideration of the community.

In the specific exercise in Palaú, a dull, red wall transformed into a colorful image where brown and black spoil heaps turned into a green land-scape, teeming with life, inhabited by people who no longer extract coal from the earth but work it to harvest food, hope, and a future.

The next step and challenge of the work are to establish conditions and enable processes to build and materialize this imagined world.















(Un)explainable Gardens: Reconnecting with the Earth

"We said 'how cool' if we want to change everything here. And we started digging, started filling bottles. At first, we saw it as too difficult, thought we would finish in months, but we will keep trying, let's see what comes out of it. We will venture out, like pioneers. As the days passed, we saw how everything bore fruit, first that we already arranged the bottles, the beds where all the fruits would go were already being assembled and we said 'oh look, it's not turning out bad at all' [...] We are creating life, and that feels very good."

ANA SOFÍA S.

Student of CECyTEC de Palaú

The health of communities and territories is based on the health of the land and its ecosystems. In La Carbonífera, as in other regions of the country and the world, that relationship is broken.¹⁰ For the population of this area, the relationship with nature is complex: on one hand, coal has been the source of income and livelihood for families, but it has also meant pain and death.¹¹

In an effort to change that narrative about the relationship with the land and to create spaces for organization and action away from the idea of mining, the construction of an agroecological garden was proposed at the CECyTEC in Barroterán. The idea was warmly received by its director, Leticia, who saw in the proposal the possibility of involving young people in activities that care for nature and imagine other life possibilities unrelated to coal mining.

To carry it out, a meeting was called with mothers and fathers. In a region with few precedents of social organization, it was surprising that more than a hundred people attended the meeting. Even more surprising was the unanimous sharing of the idea and the importance of building the garden. Stories were soon shared about family members who had dedicated—or are dedicat-

¹⁰ Interview with Rodolfo González Figueroa, agroecologist.

 $^{^{11}}$ During a workshop with a group of 100 students, it was asked who had a family member or someone close who had died in a coal mine, and everyone raised their hand.









ed—to agriculture; that is, there is not only a great desire and need for other ways of life, but the necessary knowledge to do so already exists in the region.

Now, at the CECyTEC in Barroterán, there are two agroecological gardens that have had two harvests, which the students decided to call "Inexplicable Garden." Inexplicable, says Leticia, only for those who do not know what it represents for those who participated in its design and implementation and who now take care of it. The second garden was built a year after the first one, in 2023, and arose from the concern and initiative of the students themselves. Additionally, at the initiative of a student's grandfather, a milpa (traditional maize technique) was also planted in what used to be a garden barely surviving. Inexplicable as what has to happen to challenge what has been sentenced as impossible for decades.

The following year, after the installation of the first garden, the work expanded to the Presidente Benito Juárez García primary school in Palaú, with a new garden together with dads, moms, grandparents, boys, and girls from the school. A garden was also built at the CECyTEC in Palaú, a campus known as "Cecyranch" because, they say, it resembles an arid and brown ranch. After a couple of intense workdays, the students decided to name the new garden after the nickname of their school: "Cecyranch, cultivating life and hope," this time with the intention that now, when they hear that name, it is associated with the green of the garden, with the fruits of the land and their work.

These gardens have become collective spaces of solidarity, the first threads to build a new social fabric. They represent the possibility of reconfiguring the way society is made. At the same time, they open a window to reframe the relationship of populations with the land: instead of death, it generates life; it does not serve to sacrifice it for coal extraction but to harvest food.

Like the murals, the work to build the gardens allows students to imagine their communities differently, to bring life where there was none. ¹² It excites them with the idea of cultivating a future that is not imposed and does not depend on external actors—companies and governments—whose concern for their well-being is minimal. The young people mention that from the plants and seeds of the garden, they have been filling their homes with new plants; agroecology has the particularity of not standing still.



In parallel with the work in high schools and primary schools, it was agreed with OFPC to install Memory Gardens in the homes of families of miners who died in coal mines. It is a way of paying tribute to life and combating oblivion, to transform pain into life, accompany families, and building community. The initiative took shape from the gesture of students from CECyTEC Barroterán who painted a sign with the name "Raúl's Garden" to Doña Trini (Doña Trini's son, Raúl, is stil to be rescued from the Pasta de Conchos mine).

So far, 3 Memory Gardens have been installed to remember Raúl Villasana Cantú, José Isabel Minjares Yáñez, and Isidoro Briseño Ríos. Together, the school and Memory Gardens are accelerating an agroecological vortex that has the potential to stir transformative winds in the region.¹³





There Is More Sun than Coal: Solar Schools

"...from a young age, we had the mindset that coal was our primary source of energy, but over time, that resource began to deplete [...] as time went on, we learned more about solar panels, and it moved from words to actions here at CE-CyTEC Barroterán. Perhaps in the future, we'll see it in our homes too."

STUDENT OF BARROTERÁN

Coal mining has an expiration date, as coal-fired power plants will reach the end of their operational life in less than ten years. Both nationally and internationally, there are various agreements to phase out coal use to reduce levels of polluting emissions.

Paradoxically, this closure process could be fatal for La Carbonífera and its inhabitants if not accompanied by actions to transition towards other economic activities. Defending coal as a development policy for employment and economic benefits is a sentence for the future of the region: the day coal or its industry ends, companies will pack up and leave. They have already begun to do so. What is needed are alternatives.



Nava coal plant, Coahuila, its useful life ends in 2030.

In that context, there has long been talk of the potential for solar and wind energy generation in the state; however, little progress has been made in materializing it. If we want the change to happen through the principles of a Just Energy Transition, it's not just about replacing the coal mega-industry with mega-plants for electric cars or mega-solar farms. On the contrary, it is necessary for the process to involve communities and be accompanied by deep reflections on the implications and benefits of the transition. It's not just about asking how electricity is generated but also for whom it is generated, who benefits from its generation, and how and for what purposes it is used. With all this in mind, the third element of the project is implemented: Solar Schools.





Installing solar panels on the roofs of the CECyTEC schools has a much more complex reach than a mere technical solution and spans different dimensions. On one hand, according to the general management of the CECyTEC system, their largest expense is electricity. It should not come as a surprise when temperatures in the state reach 50°C in the summer, which necessitates constant use of air conditioning in the classrooms. Thus, installing panels in just 12 schools in the region has the potential to save up to two million pesos annually for the CECyTEC system (roughly \$120,000.00 USD). This money could be used to address needs that impact academic quality.

SOLAR SCHOOLS IN NUMBERS

STAGE 1 BARROTERÁN

Installed panels:

38

Inverters:

Consumption coverage:

Total

investment:

\$250,000.00_{MXN}

Estimated annual savings:

\$60,000.00_{MXN}

STAGE 2 PALAÚ

Installed panels:

24

Inverters:

Consumption coverage:

30%

Total

investment:

Estimated annual

savings:

\$275,000.00 MXN

\$58,000.00_{MXN}

In the first stage, at the Barroterán high school, 35% of its electricity costs were covered, and the following year, 30% of the Palaú campus's consumption was covered. The installation is accompanied by close collaboration with the CECyTEC management team to develop tools that enable them to finance the remaining photovoltaic systems and thus meet 100% of the campuses' needs. This is done with the aim of generating a virtuous circle of savings and electricity generation.

Like the other components of the project, the panels are not an end in themselves but a means to critically examine the current energy system and change the narratives around it. They are mechanisms that demonstrate that another paradigm is possible: one that does not result in deaths and distributes its benefits equitably, inclusively, and participatively.

To ensure this, the panel installation is accompanied by an important educational component. This includes talks with young people and a course titled *Radiography for Change* focused on climate change, Just Energy Transition, and renewable energy. A pilot course was conducted at the Barroterán CECyTEC during the first semester of 2023, for which a pedagogical guide was developed and teachers were trained for its implementation. The exercise has been very beneficial, especially in linking changes at the campus (gardens and photovoltaic systems) with the students' context and daily lives, fostering a critical and hopeful outlook on their future with concrete references to at least a couple of viable alternatives. The process pays particular attention to close and dialogic management with the high school authorities, students, and their families.

Furthermore, the collaboration and close work with the CECyTEC system open up opportunities for public institutions to advance compliance with existing regulatory frameworks at various levels of national public policy. This includes federal and state laws, as well as environmental and climate change plans and programs in the state of Coahuila.

These dimensions, within the broader framework of the "Sembrando Transición" project, present an opportunity to concretize actions that counterbalance the narrative imposed through the hegemony of coal.

¹⁴ Mexico Climate Initiative. 44







Radiography for change is a course that is now taught annually at the CECyTEC campuses in Barroterán and Palaú.





CONCLUSIONS:

NEW NARRATIVES LEADING TOWARDS LIFE

66

This project is fostering a new sense of solidarity around life [...] the gardens and discussions about life and these new narratives encourage people to tell their own stories, to name what has been done to them, and to name what they want to do. This enables life to prevail despite coal.

"

CRISTINA AUERBACH

S o far, life in La Carbonífera has been a story of extraction, death, and sacrifice. The imminent end of this narrative opens up an opportunity for the land, water, air, homes, schools, parks, and life itself to, for the first time, belong to the people. Transitioning towards this requires effort, changing the conversation and looking beyond the mines. That's what Sowing Transition is about.

While the project has manifested in mural painting, the installation of agroecological gardens, and solar panel placement, it is fundamentally an exercise to redirect the conversation about the territory through the voices of its inhabitants.

It's a process that views the issues from a climate perspective and integrates them with other dimensions to shift the dominant paradigm of fossil fuels that have turned La Carbonífera into a sacrificed territory. From there, we dream of constructing new ways of life that prioritize people. Understanding the project in this way allows it to serve as an example for other sacrificed regions where the notion prevails that they exist solely to be exploited, an example that the interests of a few should not supersede entire territories.

By harnessing the dreams and enthusiasm of women and youth who want to change the frameworks defining their community and expand their future possibilities, this project strives to give the population the opportunity to define their energy transition justly and in reconciliation with the territory.

The timing to do so is critical. Despite the insistence of entrepreneurs and the state to seek and extract more coal for use in other industries, the mining population of the region speaks of the end of their era. Without implementing sustainable life alternatives, the people and populations in the region could be abandoned and forced to leave their land, or worse yet, subjected to a new form of sacrifice, such as fossil fuel extraction through fracking, a threat resurfacing in the words of some unimaginative politicians.

¹⁵ Interview with Cristina Auerbach

¹⁶ Interview with Elvira Martínez, Widow of Jorge, Trapped in Pasta de Conchos

SOWING TRANSITION IN NUMBERS

TWO

FOUR

THREE

murals

Four school agroecological orchards in Palaú,
Barroterán, and Agujita

memory orchards

ONE

milpa in Barroterán **62**

solar panels at CECyTEC Barroterán and Palaú, providing more than 30% of the campus's electricity consumption. ONE

A course taught to

46

students

Investment in photovoltaic systems:

\$525,000.00 MXN

Investment in orchards or gardens:

\$150,000.00_{MXN}

It's not only necessary to transition to new energy production schemes but to collectively ask fundamental questions: for whom and for what purpose is energy generated? Are these projects about life or death? For our organizations, the answer must always align with people and ecosystems.

Responding to these questions and building alternatives for La Carbonífera and other sacrificed territories involves the possibility of imagining them anew, reshaping the way people who inhabit them name what they are, what happens to them, and what they want to become. Especially it involves recognizing and harnessing their capabilities to heal their communities and forge pathways to life.

The commitment we have made at Conexiones Climáticas, OFPC, and ICM is to join and learn from the journey and efforts of the people so that life in the territory can flourish.¹⁷

This initial phase of the project reinforces our conviction that when power and decisions over territories shift to the hands of communities and are rooted in their daily lives, it is possible to dismantle extractive narratives, demand and achieve justice, and confront the climate crisis with appropriate alternatives. Doing so is a long but hopeful journey, one that requires more individuals and organizations to lighten and accelerate it.

It's a path aimed at the future that brings us back to the most basic:

LIFE.



ADDITIONAL MATERIAL

BROWSE