

WATER FOR LIFE

ecumenical action for rights and common goods in Brazil and Latin America



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Christian Aid Brazil's Programme

National Council of Churches of Brazil (Conic)

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INTRODUCTION

WATER FOR LIFE: FAITH-BASED ORGANIZATIONS IN DEFENCE OF WATER IN BRAZIL¹

ECUMENISM AND CONFRONTATION OF INEQUALITY

Faith-based organizations (FBOs) have a prominent role in promoting human rights and tackling mechanisms of global inequality. The historic milestone of the joint action of churches and FBOs dates from the context after World War II, in which the contribution of Christian churches with fascist regimes in Italy and Germany led to a profound questioning of the social role of churches and their relationship with political power. In response, churches in Europe and the United Kingdom joined forces to coordinate aid to war victims and refugees in what was the first record of joint ecumenical action. In this context, ecumenical organizations of international cooperation arise, such as Christian Aid in the United Kingdom in 1945 and Heks in Switzerland in 1946. In 1948, a wide alliance of churches forms the World Council of Churches (WCC), expanding ecumenical cooperation in the formation of a global network.

¹ Parts of this text were taken from the article Sheila Tanaka, 2019 (TANAKA, Sheila. "Ecumenismo e Desigualdade". *SUR*, São Paulo, (16) 29: 177-184, ago. 2019). Accessed 30 Jan 2020. <https://sur.conectas.org/wp-content/uploads/2019/12/18-sur-29-ingles-sheila-tanaka.pdf>

Christian Aid is the official agency of 41 Protestant churches in the United Kingdom and Ireland and has been present in Brazil since the 1970s. In its Global Strategy for the period from 2019 to 2026, it affirms its mission for “a world where everyone has fullness of life; a life lived with dignity, free from poverty and needs; where global resources are equitably shared and sustainably used; and where the voice and agency of the poor and marginalised are fully realised”². Its work is structured in three axes: 1. actions to mitigate the effects of poverty; 2. long-term advocacy work to identify and challenge the underlying causes of inequality; 3. strengthening faith communities, social organizations and other local actors as spaces for articulation and denunciation, to enhance prophetic voices for justice.

In Brazil, Christian Aid works in partnership with social movements, civil society organizations, churches and ecumenical organizations. The work is oriented towards the promotion of community rights to access to land, goods, services and spaces for social and political participation. The recent dynamics of increasing poverty in the country, with cuts in public policies and increased private control of natural resources, require that faith-based organizations update their analysis and way of working, strengthening networks and creating innovative tools for dialogue with their bases.

The Water for Life Project was developed in 2018-2019 together with Christian Aid partner organizations in Brazil, with the aim of strengthening ecumenical networks and the capacity of faith communities to advocate for the defence of our common goods. The project bets on the importance of the Brazilian ecumenical movement – and its international relations – in actions for social and environmental justice and its potential to multiply.

2 CHRISTIAN AID GLOBAL STRATEGY 2019 - 2026. Standing Together For Dignity. For Equality. For Justice, 2019, accessed 30 Jan 2020 <<https://www.christianaid.org.uk/sites/default/files/2019-03/global-strategy-web.pdf>>

WATER AS A SACRED ELEMENT AND A TRIGGER OF INEQUALITIES

Unequal access to water is one of the most perverse ways in which inequality manifests itself in Brazil. Although the country holds 20% of the world's aquifers and drinking water sources, more than 34 million people do not have access to drinking water. The lack of conscious management of water resources prevents access to water even to communities living near water sources, either through private control or through contamination of rivers and water sources.

Contamination and scarcity of water in some regions is aggravated by the predilection of official bodies for the private interests of large corporations over the rights of poor populations and communities in urban peripheries and rural areas. The increasing commercialization of natural resources is aggravated by the concentration of land with springs and by the lack of environmental inspection in preservation areas. The exclusion of affected communities from decision-making processes concerning water resources shows that access to water is related to unequal political power structures in the country.

The lack of water in rural communities is also a direct consequence of the rural development model. Extractive mining and agribusiness activities lead to contamination of rivers and springs and periods of drought in regions that depend on irrigation. In Oriximiná, in the State of Pará, *quilombola*³ and *ribeirinha*⁴ communities face countless consequences of river contamination on their health and livelihood since the beginning of bauxite mining

³ Translator's note: *Quilombolas* are descendants from black enslaved people who, in colonial times, fled from slavery seeking shelter in isolated regions and remained there even after abolition, maintaining their own identity and culture.

⁴ Translator's note: "*ribeirinhos*" are a traditional population who lives near rivers (*rios, ribeiros*).

in the region. In the Ribeira Valley (Vale do Ribeira), State of São Paulo, tomato monoculture has been causing the contamination of springs, with immeasurable consequences on the health of the population, especially women. As one of the faces of gender inequality, women are the most impacted because they have to walk great distances to fetch the water necessary for the care of the home and family, in addition to having direct contact with contaminated water when washing clothes and preparing food.

All this contrasts with the fact that water is a sacred element for all religions, as a source of life and the fruit of divine Creation, with a purifying and unifying character. The call to care for the planet and its natural resources, or in other words: for the Creation, is present in many sacred texts. In Christianity, water is the symbolic element that materializes the affiliation in baptism, and the protection of water sources is a commitment to divine love itself. In religions of African and Indigenous origin, water is also present in initiation and purification rituals, as an element that brings life and protection.

Against this background, the World Council of Churches approved, in 2006, a declaration calling on its member churches to monitor conflicts over water in their regions and to publicly take a stand against privatization initiatives and for the defence of community access to water. Furthermore, it also calls on churches to join in the articulation of the Ecumenical Water Network. This network aims to support the exchange of information between churches and communities on the water crisis and local solutions found, in addition to promoting and coordinating actions of international incidence for the recognition and fulfilment of the human right to water.

In response to this call, the National Council of Christian Churches of Brazil (Conic) published, in cooperation with churches in Switzerland, the “Ecumenical Declaration of Water as a Human Right and a Common Good”, a first call for churches and faith

organizations to stand in defence of Brazil's natural resources, on the occasion of the beginning of the International Water Decade (2005-2015). The publication of the Encyclical Letter *Laudato Si'* by Pope Francis, in 2015, also challenges Christians to engage in caring for Creation and common goods, rejecting the paradigm of domination of nature by human beings.

As early as 2016, the Ecumenical Fraternity Campaign "Common House, Our Responsibility" also called for ecumenical action for the sanitation and treatment of solid residues, with the motto "I want to see the law sprout as a source, and justice run like a stream that doesn't dry". In 2018, the year in which the World Council of Churches celebrated 70 years of age, the Justice and Peace Pilgrimage focused on Latin America and the Caribbean, expanding the solidarity of the churches with the situations of poverty and inequality faced in the region.

In this context, the Water for Life Project was launched to continue the ecumenical articulation in the defence of water resources and expand the capacity of churches and FBOs to act. Activities included meetings, seminars, training activities for religious leaders, advocacy actions with communities, communication campaigns, and informative stage plays.

ECUMENICAL TRAINING, INCIDENCE AND COMMUNICATION IN FAVOUR OF THE WATER

The first activities of the Project were carried out during the Alternative World Water Forum (Fama), in March 2018. The Forum was convened by civil society organizations as an alternative space to the 8th World Water Forum, which took place in the same period, and had self-managed activities. The invitation for Fama made a call for the unification of civil society initiatives in defence of fair access to water and of communities affected by water conflicts.

A wide ecumenical articulation organized the interfaith tent at Fama, involving Brazilian networks, such as the Ecumenical Forum ACT Brazil (EFACT); international ones, such as the World Council of Churches and the Ecumenical Water Network, in addition to Latin American organizations, theologians and representatives of different religions. The tent hosted events to reinforce the spiritual dimension of water defence and the affirmation of water as a common good, strengthen national and international articulations and expand advocacy processes. This dialogue culminated in the ratification of an interfaith declaration, where guidelines for the work of churches and FBOs were defined. They are the following:

- *Spiritual and theological, technical and political training* which allows promoting communities as subjects of fair relations with nature, specifically water and its territories;
- *Articulation, alliance and advocacy actions* that link local agendas with the regional and global processes of sustainable development, climate justice and combat of socio-cultural inequalities;
- *Common communication strategies* that favour the exchange of experiences and knowledge, actions for public denouncement and dissemination of alternatives that involve people in the processes of justice for water and all creation.

Based on this definition, several activities were developed. More than twenty Brazilian and Latin American ecumenical organizations were identified working on this theme, in different training, advocacy and communication activities.

In collaboration with international networks, Christian Aid and its partners mapped theological productions about water and developed training courses for faith leaders. In November 2018, a regional course for youth from churches in Latin America was offered in El Salvador with the theme “Food, Climate and Water

Justice”. The young people selected participated in sessions with experts from wcc, the World Federation of Christian Students, Christian Aid and ACT Alliance, as well as getting to know personally El Salvador’s projects for fair access to water. The learnings of the regional course also fostered materials for training in Brazil, multiplying the impacts of the activity.

A partnership between Conic, Christian Aid, Creas and Faculdade Unida de Vitória made it possible to conduct an online training course for members of faith communities in the country. For a period of three months, about 90 participants had access to weekly sessions with audio-visual and text resources, in addition to participating in a virtual discussion forum. The enrolled participants represent 31 churches and faith communities in 21 states, most of them from the North and Northeast regions, where conflicts over water are latent. The modules were designed to deepen the understanding of the multiple aspects involved in inequality of access to water, its relationship with private control, climate change, gender and violence. The participants were also provided with tools to develop an advocacy and communication plan for local action.

This process, in addition to strengthening relations between organizations and networks, also guides the trainings towards a practical application of advocacy in local communities. The course participants reported in the first weeks the problems they face in accessing water, and one of the main demands is for ways to identify institutions and decision-making spaces where they can exercise some type of influence and/or present their agendas. With the support of experts, they can develop campaigns and advocacy actions in their churches and faith communities. Thus, we observe the mobilizing potential of the initiative, which virtually links resources prepared by national and regional organizations to communities with little or no support from the public authorities, where churches have a strong local political role.

In addition to the training activities, seminars were organized to deepen common understanding and to identify synergies between the organizations' work. The seminars "Water as a Common Good", in Brasília during Fama, "Injustices and Inequalities in Brazil Today", in São Paulo, and "Fundamentalisms and Environment", in Salvador, brought together about 200 participants, theologians, leaders and members of different organizations from all regions of Brazil to discuss the care for the Common House and the prospects for the ecumenical movement, enabling a space for dialogue and new partnerships.

Case studies have also been developed to identify and make visible the perspective of communities that suffer from lack of water or contamination. These studies, carried out in partnership with the Movimento dos Atingidos por Barragens – MAB (Movement of People Affected by Dams), Sempreviva Organização Feminista – sof (Ever-Alive Feminist Organization) and the Comissão Pró-Índio de São Paulo – CPI-SP (Pro-Indian Commission) identify problems not documented in official surveys, and record local voices in the Amazon and in the Ribeira Valley region (State of São Paulo). The publication of these case studies aims to strengthen the local advocacy process, developed by the communities, and the links between communities, social movements and FBOs.

The project also helped to shape the EFAC network of communicators, expanding the communication skills of the Forum. Thus, the campaigns and materials developed had a reach and impact beyond the already interested public of the churches, generating collective methodological learnings for member organizations and the Network.

Based on the actions in defence of water, the ecumenical action has got stronger and found renewed ways of doing politics. The activities achieved greater coherence and articulation between initiatives from different organizations. Ecumenical networks, such as EFAC and the National Council of Christian Churches

in Brazil, embraced the agenda and included activities in their long-term planning, influencing the action of churches, member organizations and other networks. The initiatives also strengthened collaboration between faith and secular organizations, such as social movements and associations. The approximation with the experiences of other Latin American countries with great learning in relation to the challenges of water privatization (Bolivia and El Salvador) and with global networks (World Council of Churches – Ecumenical Water Network and ACT Alliance) show not only the global relevance of the issue, but also the great capacity for articulation of the movement.

This is not the end of a project, just another chapter in the ecumenical movement's long and rich trajectory. We hope that this publication will be a contribution for churches and FBOs to continue improving their methods and analysis in the struggle for solidarity, equality and justice.

Christian Aid Brazil Programme.

A large teal circle is positioned on the left side of the image, partially overlapping a dark blue background. The circle's edge is smooth and curves towards the right.

PART I

REFLECTIONS
&
LEARNINGS

ECUMENICAL COMMITMENT TO THE HUMAN RIGHT TO QUALITY WATER

P. Romi Márcia Bencke (Conic)

*Let justice roll on like a river, righteousness like
a never-failing stream.*
(Amos 5.24; NIV)

I retrieve the Bible verse from Amos that inspired the 2016 Ecumenical Fraternity Campaign. The Campaign addressed the issues of the right to water and to basic sanitation. At that time, we claimed that God's Creation cannot be turned into merchandise to satisfy the desire for profit of large corporations.

In the capitalist system there should be an ethical threshold that points to the limits of enrichment. Some criteria could contribute to the delineation of such limits, among them, the collective and community dimensions of natural resources, in particular, the biomes and all the complexity of the systems that form them, mainly the water and forest systems. The Earth is a complex and systemic system, in which everything is interconnected. We are

one body formed by multiple characteristics. The destruction of one part of this body weakens the lives of all the others.

“All of us have the colour of the earth in our skin” – reminded us of a peasant woman impacted by a development project that denies the right to the traditional cultures of one of the biomes of our country, the *cerrado*¹ of Bahia. The statement “We have the colour of the earth in our skin”, reminds us of our primordial ancestry – Adam – the one who is of the colour of the earth. Therefore, overcoming the anthropocentric vision is a central challenge to be faced in order to establish a new relationship with the House we inhabit. It is in this framework that we affirm that water is for life! Without water there is no life on the planet. Without water there is no spirituality. Water, for us Christians, is the main sacramental element of Baptism.

However, despite the importance of water for the existence of the House we inhabit and for our physical and spiritual life, we are little concerned with the life of the water systems. The capitalist system has created its own hermeneutics that place human aspirations, ambitions and desires for domination and wealth as the centre of existence. In this logic, everything is subordinated to the unstoppable desire for wealth: the natural resources as well as the life of human beings.

Latin America has long developed an understanding of ecclesiology of its own, namely, that the church is People of God in movement. This means that there is no life and no spirituality if we do not understand each other as a whole. If in the past this ecclesiological vision was also very much centred on the human being, it has expanded more and more in the sense that the church

¹ Translator's note: *cerrado* is a Brazilian tropical savannah ecoregion with typical vegetation and wildlife.

necessarily needs to be the place, the space, the territory we inhabit. This means: not in an institutional sense, a sense of domination, but in a collective and complex sense, of *oikoumene*. This understanding allows us to affirm that the waters, the land, the forests have the right to life and have their rights to existence. It is not possible for natural resources to become commodities and merchandise. Making them merchandise means that we are becoming idolaters, because it requires the sacrifice of a part of life in order to make the God “capital” feel satisfied.

Our country, despite being Christian, is a country of the idolatry of the God “capital”. Our biomes, our aquifers, our rivers, our forests are being sacrificed for the satisfaction of profit. Brazil has authorized the use of 382 pesticides. Everything is done to satisfy the desire of monoculture and the latifundium.

We are a country rich in water. The two largest aquifers in the world are in Brazil: Alter do Chão and Guarani. In addition to these two, the Cabeças, Furnas and Areado aquifers are in our territory. However, there is little concern about the care and preservation of these immense water reservoirs.

In recent years, the Brazilian ecumenical movement, articulated in the Ecumenical Forum – ACT Brasil, has led, together with other social movements and organizations, the debate and the development of concrete actions in favour of waters. There are many initiatives, among them: the 2016 Ecumenical Fraternity Campaign “Common House, our responsibility”, the Interfaith Tent of the World Alternative Water Forum, the Ecumenical Mission “Waters of Resistance”, held in the *cerrado* region of Bahia and the course Water for Life.

All these activities are an expression of what we understand by ecumenism. More than a way of establishing a bridge between different churches, the movement is a mission engaged in favour of a justice that materializes in a profound transformation in social, economic and creation relations. In this sense, putting water at the centre of our action for justice means rescuing the theology of the

cross, materialized in an Earth that feels the pain of agribusiness torture in the deaths of rivers, in the contamination of aquifers and in the economic exclusion of traditional peoples and communities. These peoples and communities, as they do not have access to water, are unable to make their subsistence viable, guaranteed by small agriculture, often carried out in a communitarian way. Full justice is the justice which guarantees the dignity of Creation. To struggle for this justice means to foresee a new Kingdom and signs of the resurrection. Full socio-environmental justice is the overcoming of the cross striving for resurrection.

We gathered a lot of learnings during this process. The main one was to learn from traditional communities the relationship they establish with water. Water is part of the centre of their existence. It is inside the well which supplies the whole community. Thus it is the place of meeting and conversation. Water is what guarantees varied foodstuffs, it is what guarantees the fun of the river baths. For these communities, the water is not separate from life. It is part of their existence.

We also learned the importance of working with different civil society organizations. The sharing of our knowledge is fundamental for the production of transformation processes. We also took the dimension of spirituality to other movements. This exchange of experiences and encounters strengthens our creativity, enabling us to update daily our sense of existence.

Based on the Water For Life project, Conic was invited to join the Network Observatório Nacional pelo Direito à Água e ao Saneamento, Ondas (National Observatory for the Right to Water and Sanitation), which integrates various civil society organizations and social movements. Conic also reinforced its participation in the World Council of Churches' Ecumenical Water Network, which brings together religious and academic leaders to strengthen the role of religions in the defence of integral ecology, with special emphasis on fair access to and protection for water.

The Water for Life Course helped to articulate different sectors of society around the right to water and the right of the waters. For weeks, education professionals and lay and ordained religious leaders debated and sought the development of concrete actions in favour of the waters.

The Course connected us regionally, since it was coordinated by Brazil and Argentina. It was a time rich in reflections that allowed us to understand that the House we inhabit cannot suffer the consequences of the borders created by us, the human beings. The waters run free. They need this freedom. The barriers to retaining them are human, just as their destruction is human. The Course Water for Life was an opportunity to bring together knowledge from different areas of knowledge and theology to feed them back in order to go beyond Cartesian logic. Without breaking down the walls that prevent us from recognizing that our domination of the environment is, at its heart, the consequence of market idolatry, we lose our prophetic force. The course Water for Life in 2019 was a prophetic outcry in a country where rivers are sacrificed on the altar of the market.



Interreligious Tent in Fama (Alternative World Water Forum)
Photo by Christian Aid/Leonardo Godoy.



REFLECTIONS ON THE COURSE WATER FOR LIFE

Horácio Mesones (Creas)

The ecumenical articulation during the Alternative World Water Forum held in 2018 developed a strategy for training leaders of the church bases to advocate for the right to water, particularly for communities in situations of poverty. Thus, the Ecumenical Regional Centre of Consulting and Services (Creas), the National Council of Christian Churches of Brazil (Conic), Christian Aid and partner organizations in Brazil articulated a training proposal that resulted in a concrete proposal to be developed in the communities.

From the beginning, the proposal's design and development team was aware of the current political context in Brazil and the restrictions on organized civil society in demanding basic rights. The pressures to which social leaders are subjected were taken into account when imagining people and actions within the framework of the training proposal. On the other hand, it led the team to explain the political horizon of the project: it is necessary that grassroots organizations, in particular the churches, strengthen their action and are connected to raise their voice in the country in favour of the full and abundant life that the peoples are entitled. It was in this spirit that we began the journey of *Water for Life*.

The *training* had four modules. The first dealt with the right to water from a liberating social and theological perspective; the second deepened the issues that affect communities more directly; the third exposed the position of the public and private sectors, social organizations and churches on these issues; and finally, the fourth dealt with the methodology of incidence coming from the bases, with an emphasis on communication strategies.

The *virtual course* started in March 2019 and gathered participants from all over Brazil – from the States of Rio Grande do Sul to Roraima and from Rondônia to Alagoas. Especially in the Northeast, we exchanged knowledge, experiences and proposals mediated by different technologies. Thus a database of legislation on the right to water in Brazil was constructed and panels were elaborated to present local problems. In a video forum proposals for solutions to contamination were shared and topics such as gender injustice related to water, the lack of public services, the effects of climate change and socio-environmental conflicts were discussed.

In addition, there was intense direct contact via WhatsApp and videoconferences, where the member organizations could share their experiences and knowledge.

Of particular importance was the methodological route that allowed to identify issues, problems, actors and strategies for visibilisation and incidence in favour of right to water in the public sphere. As a result, thirteen incidence proposals related to rural sanitation, protection of springs, and basic access in the semiarid region were prepared, in addition to proposals for water reuse, protection of springs at risk by dams, installation of public drinking fountains and family monitoring of the water in the community.

This experience adds to others that Creas developed in cooperation with Christian Aid in the form of network education mediated by information and communication technologies (ICTs), with support for formulating proposals that strengthen the work of churches in promoting rights for communities. The experience of developing training projects that reach remote places, where opportunities with regional reach are scarce, was an important point on which *Water for Life* was constructed. However, this experience had some important differences from previous ones.

First, the content, educational resources and direct connections were offered by the Brazilian organizations that are part of the network formed at the Alternative World Water Forum.

These organizations, many of them linked to churches and to the ecumenical movement, made their knowledge in the field of community development, economic, social, environmental and gender justice available to the participants, in addition to their actions of public and political influence.

Theoretical contributions and practical experiences contributed to the different themes, recorded both in documents and in videos, came from: Processo de Articulação e Diálogo (Process of Articulation and Dialogue, PAD), Federação Luterana de Diaconia (Lutheran Federation of Diaconia, FLD), Diaconia, Associação Nacional dos Serviços Municipais de Saneamento (National Association of Municipal Sanitation Services, Assemae), Movimento dos Atingidos por Barragens (Movement of People Affected by Dams, MAB), Conselho Nacional de Igrejas Cristãs (National Council of Christian Churches, Conic), Sempreviva Organização Feminista (Ever-Alive Feminist Organization, SOF), Comissão Pró-Índio de São Paulo (Pro-Indian Commission of São Paulo, CPI-SP) e Instituto Ecumênico Andino de Teología (Andean Ecumenical Institute of Theology, Iseat), as well as the Rede Ecumênica da Água do Conselho Mundial de Igrejas (Ecumenical Water Network of the World Council of Churches). The work in two languages was also a challenge, however, the collaboration with Conic allowed the presence of two young translators in Brazil who permanently animated and guided the participation.

The ecumenical dimension of this experience must also be highlighted. The participants, in addition to their experience with community work, social organizations and the academic field, belong to different churches committed to the rights of communities. This unity based on prophetic *diakonia*, articulating direct territorial work with proposals that strengthen the public voice of the churches, indicates the way in which Christians committed to justice are shaping ecumenism in Latin America.

As immediate effects, we hope that the training will allow to expand the theological, social and political horizon of local expe-

riences, adding up to an effective methodological route that will make it possible to realize and make visible the transformations promoted by the churches and grassroots organizations.

Water for Life provides a first base to connect with local experiences of incidence. We are planning a publication that retrieves the experiences of the course and allows replicating the training in other contexts, both in Brazil and in Latin America. In this way, through the use of accessible technologies, we strengthen and connect initiatives in distant places in Brazil with similar experiences with the purpose to promote a great continental movement that, based on faith, promotes access to water as a gift of life for all.

5th ECUMENICAL MISSION: FOR THE WATERS OF THE CERRADOS OF BAHIA¹

Ecumenical Forum ACT Brazil

INTRODUCTION

Brazil is one of the most biodiverse countries in the world and holds 20% of the planet's water sources, but these resources are under threat. In the western region of the State of Bahia, communities are worried about the negative effects of land and power concentration. The region is home to riverside and peasant communities who for many generations have lived in harmony with the land and waters – through fishing, agriculture and hunting, preserving rivers and the *cerrado*. However, the arrival of large agribusiness farms in the 1970s kindled a silent and dangerous war for the control of natural resources.

The conflicts peaked in 2017, when a thousand people from the municipality of Correntina in the State of Bahia occupied a local farm and damaged the machines to denounce the abusive use of water by the property. While the entire population of Correntina

¹ Original publication under the title “ACT Alliance Brazil Forum: agribusinesses are threatening access to water, while authorities keep silent” on October 18th, 2019. Available in: <<https://actalliance.org/act-news/act-alliance-brazil-forum-agribusinesses-are-threatening-access-to-water-while-authorities-keep-silent/>>. Accessed: 30 Jan 2020.

uses approximately 3 million litres of water per day, a single farm draws daily 106 million litres of water from the region's rivers. This amount is equivalent to what the farm is legally allowed to use, but there are no mechanisms for inspection and control over this limit. Public authorities are silent on the matter, and the communities do not receive answers while the rivers are drying up and the population is facing periods of drought.

The ACT Brazil Ecumenical Forum carried out an Ecumenical Mission to assess the impact on the communities and the water resources. The mission, coordinated by the Ecumenical Service Coordination (Cese), took place between the 3rd and the 5th October 2019. A group of 70 missionaries from churches, faith-based organizations, social movements and international cooperation agencies, including members of ACT Alliance, Christian Aid, Koinonia, Lutheran Foundation of Diakonia, met in the region to: *show solidarity* and support to the affected communities, *denounce* the predatory model with which the waters of the region have been used by agribusiness, *sensitize* churches and civil society to the environmental challenges that involve the right to water, land and territory, raise awareness about the responsibility for the Common House, and *demand* State actions to resolve socio-environmental, territorial and water conflicts in Western Bahia.

During the three-day mission, the participants took part in a public hearing with the State prosecutor's office where the local population expressed their concerns, visited communities affected by drought and illegal land grabbing to assess the damage and collect data, and celebrated an ecumenical mass with clergy from different denominations.

The ecumenical movement is a powerful actor capable of catalysing initiatives in defence of the poorest and most vulnerable populations in Brazil. In the current context, while authorities promote the dismantling of social, economic and human rights, it is crucial that the ecumenical movement raises its voice to protect and alleviate the suffering of the most vulnerable, and to demand justice.



Ecumenical Mission for the Waters of the
Cerrado of Bahia in Correntina
Photo by Cese/Thomas Bauer.

FINAL STATEMENT OF THE MEETING

5TH ECUMENICAL MISSION: FOR THE WATERS OF THE CERRADOS
OF BAHIA. FROM THE SPRINGS TO THE SÃO FRANCISCO RIVER:
WATER FOR LIFE!

On 3 and 4 October in the west of Bahia, we, representatives of different expressions of faith, provoked by the Ecumenical Coordination of Service (Coordenadoria Ecumênica de Serviço, Cese) and with support from the ACT Brazil Ecumenical Forum, undertook the 5th Ecumenical Mission in order to provide national and international visibility to water-related conflicts.

Our mission was held during the days when we remember and celebrate the charisma of Francis of Assis, who recognized Mother Earth, our *Pachamama*, as a living being, deserving of affection, care and love. This spirituality, which understands that a human being is the smallest part of a complex web of life, is the force that sustains our missionary journey.

We were affected by the prophecy of denunciation at the public hearing from men and women who have suffered the impacts of an anti-democratic, capitalist system which denies traditional communities the right to exist.

The cries that we heard denounced the expansion of the tentacles of an exploitative system that transforms land and water into commodities, annihilating these two forces, which are expressions of the sacred for traditional peoples.

“All of us have the colour of the earth in our skin” remind these women, who suffer the impact of a development project that denies the right to exist of the many cultures that make up the *Cerrado* region of Bahia. All of us have the colour of the earth in our skin, which takes us back to our primordial ancestry – Adam – he who is the colour of earth.

Shootings, land grabbing, harassment, the manipulation of information, the restriction of the right to come and go, pressure to leave your land, are all examples of the denounced violence.

In Barreiras, Correntina, São Desidério, Serra Dourada and other municipalities we identified how agribusiness functions in the region and in many other territories around the nation, in an authoritarian, aggressive manner, incapable of coexistence with the diversity of creation.

The dignity of those in this struggle, from the *geraizeira* (pastoralist), artisanal fishing and other traditional rural communities, provides the power that drives these communities' capacity for resistance.

We do not want charity. We want our right to water and to maintain our traditional way of life. This claim contrasted with attempts by public agents to provide responses to demands within a context of the absence of the Democratic State and where the prevailing option is for an agrarian policy that does not recognize traditional ways of life.

Given everything that we heard and learnt, it is fitting to share some fundamental challenges for the region:

1. That the public authorities secure land rights for traditional peoples, preventing agribusiness and its private militias from improperly appropriating land that is sacred to traditional peoples;
2. That the competent bodies conduct research into the impact of toxic pesticides on the fish and food consumed by these communities;
3. That they guarantee effective public oversight mechanisms for grant-making procedures;
4. The urgent need to bring together different communities in order to draw up an agenda for common action.

Our cry is the cry of one of the rural workers at the public hearing: Have compassion for rural workers and have compassion for the Earth and the Waters!

"From the springs to the São Francisco River, water for life!"

Correntina, Brazil, October 2019.

PRACTICAL GUIDE FOR WATER INCIDENCE

Kátia Visentainer (PAD)

Advocacy is a set of actions developed to influence the Legislative, Executive and Judiciary powers and society, in the formulation, approval and execution of government policies. Today it is used as a synonym for defence and argument in favour of a cause. It is a process of claiming rights that aims to influence the formulation and implementation of public policies that meet the needs of the population.

WHO DOES ADVOCACY?

Who does it: in general, the term advocacy is used to describe pressure actions taken by civil society organizations that represent a particular cause. Thus, it is essential that the organization has legitimacy before the group it intends to represent.

Such credibility can be earned through greater involvement with the interested public, commitment to their demands, transparency in their advocacy actions and strategies, integration between leaders, members and interest groups and the use of reliable information and arguments in the presentation of proposals to the citizens.

HOW TO EXERCISE ADVOCACY?

The way in which advocacy occurs varies according to the possibilities present in the political context in which the group is living.

Each country, for example, has its own legislation regarding popular participation in the formulation of public policies, limiting or increasing the means by which citizens can legally collaborate to modify state laws. Some examples of advocacy are:

- Pressure on decision makers;
- Institutional participation (in councils, committees, forums, civic campaigns);
- Demonstrations, protests and strikes;
- Education of interest groups;
- Propose changes to the legislation.

HOW TO CARRY OUT AN ADVOCACY CAMPAIGN

First Step

What is the problem?

- Identify the problem
- Why tackle this problem instead of others?
- What are the priorities for this problem?
- A summary analysis of the problem:
 - What are your views on the problem?
 - Why are you concerned about this issue?
 - What is your agenda?
 - What are the other points of view on this problem?
 - Have you consulted men and women?
 - Which interests are considered by each point of view?
 - What interests do you think you are serving?

Second Step

How can you find out more about this problem?

- Collect information on the subject within your local and national context.
- Search for similar regional and international examples.
- Be familiar with current policies, standards and guidelines.
- Find precedents in other contexts.

Third Step

What is the vision of your campaign?

What are the goals along the way?

- In the light of your research, do you still maintain your initial views on the problem?
- Establish non-negotiable items.
- Clearly identify your goals. Focus on the small steps

Forth Step

Identify the actors

- Who do you want to reach?
- Who has the power?
- Who are your allies?
- Who are your opponents?

Fifth Step

What strategy will you use to achieve your goals?

Make an action plan (including some or all these tactics):

- Consider what human and financial resources you have at your disposal;
- Form a campaign committee with gender diversity and relevant subcommittees;
- Build alliances with other interest groups that are potential partners in this campaign:
 - * Create allies and study how to interact with them;
 - * Create e-groups (electronic discussion groups);
 - * Mobilize people you have identified as actors.
- Make fundraising;
- Share information. Create a flyer or a newsletter;
- Appoint a spokesperson and identify charismatic people who will publicly join the campaign;
- Get press coverage;
 - * Send releases;
 - * Write letters to the editors of the media;
 - * Publish articles in the press;
 - * Run ads;
 - * Grant interviews to radio and television stations;
 - * Make posters;
 - * Create protest songs;
- Get public attention:
 - * T-shirts
 - * Stickers
 - * Buttons
 - * Murals
 - * Organize public meetings and forums
 - * Hold public protests – consider using unusual practices

- Identify key people and develop strategies to influence governments and other sectors;
- Get closer to your opponents by promoting, for example, public debates;
- Deal with attacks and counter arguments from opponents;
- Assess the potential risks and consequences.

Sixth Step

How will you monitor and evaluate the success of your campaign?

- Report the progress of the campaign;
- Archive all campaign results (photos, newspaper clippings, etc.);
- Consider course changes when necessary;
- Evaluate your results and failures according to the stipulated goals;
- How are you going to strengthen your campaign and carry it further?

COMMUNICATION TOOLS

What is the media and why does it matter in advocacy?

The media includes traditional media platforms such as radio, television, newspapers and magazines, and electronic and online media such as email, the internet, social networking sites and blogs. It is a powerful force that can build awareness, shape public opinion and influence decision-makers and their decisions, leading to changes in laws, policies and practices. Using the media

well, and integrating our media activities into our wider advocacy strategy, can greatly enhance our advocacy work and increase the chances of bringing about the changes we desire.

What opportunities exist for working with the media in advocacy?

There are an increasing number of options open for working with the media, including

Written

- Press releases;
- Letters to the editor of a local or national newspaper or magazine – the letters page is often one of the most-read sections of a newspaper and a carefully worded letter of a few paragraphs can be particularly effective in getting across the main advocacy messages and a call for action;
- Feature-length articles for newspapers or magazines – these always have a strong appeal on a personal level. They are often linked to an individual's personal story, a single topic and particular advocacy moments, but they do not necessarily need to relate to a current news topic;
- Blogs written from a personal point of view, or in the name of the leader of our organisation, for our organisation's website or a media website.
- Background information for journalists on the issue (on the basis that they may not have time to do in-depth research themselves).

Spoken and visual

- Radio interviews;

- TV interviews;
- Phoning in to a radio talk show;
- Radio or television programmes, including producing regular programmes in local languages, as well as storylines about the issue placed within soap operas or other popular programmes;
- Film footage on social networking sites, illustrating how communities have been affected by an advocacy issue

Relational

- Putting on a breakfast or lunch for journalists and inviting them to come and find out about an advocacy initiative;
- Inviting a journalist to an event or to see what is happening in one of the communities affected by an advocacy issue;
- Organising joint events with the;
- Working through social media, alongside traditional media channels, to share stories and build relationships with key journalists. This list is not definitive. New ways of working with the media continue to be identified and developed, so it is important to keep an open mind and use different methods of engagement.

What are media messages and how are they created?

A media message is the most important point that we want the interviewer and the public to pick up from our media work. It is the key thing that gets emphasised, whatever media channel we choose to use.

For example, our media message may be that we want the government to take a particular action (e.g., pass a law, provide water to a certain region), or draw attention to a certain situation (e.g.,

an increase in child trafficking from poorer regions of the country), or highlight positive news about a successful episode (e.g., a women's cooperative building a school together).

It is important to know what we want to convey in our media message, and it must be consistent and aligned with the *advocacy* messages used in the lobby and in the mobilization.

Most people cannot retain more than three pieces of information at a time. So, to formulate a good media message, think in terms of 3s. The message should have no more than three key points.

Characteristics

Our message should be clear, concise and colourful, using vivid examples and painting a picture of the situation. Remember the ABC rule:

- Acknowledge the question ('Yes, that's an important point')
- Bridging phrase ('But really the fundamental problem is ...')
- Communicate ('The real point is ...')

Remember: Avoid jargon and abbreviations or acronyms. Use images truthfully and respect the dignity of the subject.

It is good to be able to summarise our main message(s) in one or two sentences so that we are sure what we are trying to get across.

We should always try to use accessible language. We can do this by asking, 'Will someone who knows nothing about this issue understand this message?'

The clearer the core message, the easier it will be to include it in media work and the more likely the media will be to cover the story in the way we want.

What is the good practice for working with the media for advocacy?

Whether we are writing or speaking, and whether we are working live or recorded, the following principles have been tried and tested:

Understand the aim

Why do we want media coverage? Is it to reach decision-makers or a wider audience? Is it to raise awareness or to put pressure on decision-makers for changes in laws, policies and practices?

Use clear media messages

What particular messages do we want to share? Are we able to condense them into three key points? Are they clear, concise and colourful?

Target key media

If our advocacy message is aimed at government, then we will want to target media that has a wide reach and/or media that reaches government officials. Sometimes, these media channels are harder to gain access to, but it is worth pursuing contacts as this will increase the impact of our media work. Alternatively, if our advocacy message has a purely church focus, then gaining coverage in Christian media may be our main aim.

Target key people

To use the media well, we need to have good relationships with relevant people who are covering the issues of interest to us and, if possible, are in sympathy with what we are trying to do.

As an organisation, it is a good idea to try to become known for expertise in relation to the issue and to build up relevant contacts in the media.

Try to view the issue from the perspective of the media

We need to ask ourselves: why is this newsworthy? What will catch people's attention? What is the likely reaction?

Remember that no news is unbiased

Most media have values behind them, whether they are political, religious, poverty-focused, etc. We must find out what this bias is before we approach them, so that we have a good understanding of how they may view our issue.

Use of social and digital media

Social media and websites that share film footage can both be useful for collecting and sharing stories, quotes, film clips and other materials. They can also be useful for building relationships with journalists and opinion-formers. Digital media can be used to record the data for sharing.

Written media messages

One way to get a written media message out is to prepare a press release. These are sent to media contacts to try to get your issue on the radio and in print media, electronic media and television.

It is one of the most common ways of sharing information with the media. The media receive far more information and stories than they can cover, so press releases need to be interesting and relevant in order to catch the attention of the media, otherwise

they will be ignored. They should also be shared through social media, websites, emails, texts and any other appropriate means.

Releases for different media will have different styles and emphasis, but they all have certain things in common. Make sure you answer the following questions:

- What is happening /has happened? *The media story*
- Who, where and when? *The facts*
- Why is it happening / has it happened? *The analysis*
- How is it affecting people and why is it important?
The relevance
- What needs to happen now? *The advocacy 'Ask'*

Include the basic information in the first paragraphs (what, who, where and when). Include a direct quote from a spokesperson and an example or story. The quote will often be from the director of the organisation or someone who has been affected by the situation.

It needs to be concise and get across the main advocacy message. Apply the 'So what?' question to the press release. Why is this interesting or relevant to the general public? Why would people want to read what it says?

Include good photographs, if possible, as this can significantly improve the chance of coverage in a newspaper and on the Internet.

Ensure that facts are correct and put contact details and any further information at the bottom of the press release, as well as any additional information and statistics. Once the press release has been sent, contact the person who has received it, in order to find out whether they will cover the story or want more information.

BIBLIOGRAPHY

CAIS

Incidência política das organizações da sociedade civil: contexto, experiências, referenciais e desafios. Processo de formação em incidência política e sistematização de experiências (2014-2016). Brasília: Centro de Assessoria e Apoio a Iniciativas Sociais, 2017.

TEARFUND

Advocacy Toolkit. Roots (Resourcing Organisations with Opportunities for Transformation and Sharing). Roots 1 and 2. Teddington: Tearfund, 2015. Available in: <https://learn.tearfund.org/~media/files/tilz/publications/roots/english/advocacy_toolkit/second_edition/tearfundadvocacytoolkit.pdf?la=en>. Accessed: 30 Jan 2020

WATSON, Joanna

Kit de ferramentas de advocacy. 2. ed. Curitiba: Esperança, 2015.

ECUMENICAL ACTION AND WATER AS A COMMON GOOD

Beatriz Leandro

We have forgotten that we ourselves are dust of the earth.
(Genesis 2:7)

*Our very bodies are made up of her elements, we breathe her air and
we receive life and refreshment from her waters.*
(Encyclical Letter *Laudato Si'*, 2)

Although the environmental movement is not a religious movement, there are several points of contact between the two: both have the perception that nature and humanity are more than a set of material properties, and therefore have a strong rejection of the dominant materialist view. Lisboa (2009, p. 101). The ECO-92 participants commented that the most symbolic event of the environmental conference was the interfaith vigil attended by Dom Luciano Mendes de Almeida, Dom Helder Camara and the Dalai Lama. Recognizing the debt of our technological civilization to the traditional communities, the alliance between the environ-

mentalist and the religious movements and indigenous peoples also has been strengthened (LISBOA, 2009, p. 105).

Leonardo Boff was one of the first theologians who integrated ecology into religion, articulating the issue of the poor and the oppressed to ecological aggression because they were victims of the same economic system. His book *Ecology and Poverty: Cry of the Earth, Cry of the Poor* (1995) states that religion and ecological discourse have something in common: they come from two bleeding wounds. The first, the wound of poverty and misery that dis-structures the social fabric of millions of poor people worldwide. The second, the systematic aggression to the Earth, disrupts the balance of the planet threatened by the depredation caused by the type of development set up by contemporary societies. Both lines of reflection start from an outcry: “the cry of the poor for life, freedom and beauty [...] and the cry of the Earth that groans under oppression” (BOFF, 1995). According *Uol News* (NO VATICANO, 2014), the Pope consulted Boff in 2014 in the process of writing Encyclical Letter *Laudato Si'* (LS).

Science is said to, in principle, deny religion. But religion exists. It is constituted in a system of given facts. In a word: it is reality. How could science deny such a reality? (DURKHEIM, 1996).

The predatory use of nature was intensified with the expansion of mercantilist capitalism – the discoveries, the development of a world market and the Industrial Revolution. The relationship of capital, labour and power move historically through, and not around nature: modernity does not only act upon nature, but develops through the web of life. Moore (2012) calls this synthesis capitalist world-ecology.

This logic led the dominant populations to oppress the marginalized and to deprive the Earth. Reason became the only way

to access reality, took over the world and stiffened knowledge (SERRES, 2003, p. 83). The method of modern science, proposed by Bacon and Descartes, was to subjugate nature, where we came from, with practices that isolate, extract, delimit, eliminate and separate (LISBOA, 2009, p. 37). Bacon believed in mechanism as the supremacy of man: “To obey nature is to command it” (1979). With Descartes, men were “certified that our mission is to dominate, subdue, conquer it” (MORIN, 1975, pp. 20-21). Sloterdijk points to an “anthropological catastrophe” of the great civilization, “a destroyer of souls” (1993, p. 48). Or the “anthropocentric excess” of modern times (LS, 116).

In 2008, the Lambeth Conference¹ welcomed the integral understanding of nature as a gift from God that must be protected, not plundered. The Anglican bishops rejected the interpretation made of Genesis which invited man to dominate the land in order to favour the wild exploration of nature:

“In Genesis 1:28: the words ‘dominate’ or ‘subdue’ were misinterpreted as ‘do what you want with the Earth’. If humanity is made in the image of God, humanity must learn to take care of His creation” (ANGLICAN PROVINCE OF SOUTH AMERICA, 2018, p. 19).

Seven years later, Pope Francis also condemned the misinterpretation of this same Bible passage. He says that Christians misunderstood the Scriptures by deducing that if we were created in

¹ The Lambeth Conferences are assemblies of the bishops, the Anglican ecclesiastical authorities, and have been held every 10 years since 1867. During the Conferences resolutions are debated that will weigh on Anglican doctrine worldwide. In the 2008 edition, some important resolutions alerted the Communion to the teachings of indigenous peoples.

the image of God and “given dominion over the earth”, this would amount to absolute dominion over other creatures (15, 67). “We have no such right” (15, 33).

Everything is related, and we human beings are united as brothers and sisters on a wonderful pilgrimage, woven together by the love God has for each of his creatures and which also unites us in fond affection with brother sun, sister moon, brother river and mother earth (15, 92).

Or: “Without mother, there are no brothers” (MORIN, 2011, p. 165).

In 1979, the German philosopher Hans Jonas wrote *Das Prinzip Verantwortung. Versuch einer Ethik für die technologische Zivilisation* (*The Imperative of Responsibility – In Search of an Ethics for the Technological Age*) He states in the book that traditional ethics has always been anthropocentric (JONAS, 2006, p. 35). Faced with the growing and excessive power of man, it was increasingly necessary to establish “normative brakes” for science and technology. When considering the future generations, he proposes a new imperative: “Act so that the effects of your action are compatible with the permanence of genuine human life on Earth” (JONAS, 2006, p. 47). 40 years after the work of Hans Jonas, at the opening of the UN Climate Summit in September 2019 in New York, Swedish environmental activist Greta Thunberg asked the adults: “You all come to us young people, looking for hope. How dare you! Our house is on fire!” (ORENSTEIN & MAMMI, 2019).

The Alliance of Presbyterian and Reformed Churches of Latin America (Aipral) has prepared an educational tool on climate change and access to drinking water. The book *There is still time* (2016) instils reflections on how God’s creation is influenced by human practices, consumerism, greed and lack of responsibility in relation to the gift of a common house.

The world's leading climate science organizations have produced a historic report entitled *United in Science*, analysing the 2015-2019 period. They highlighted the growing gap between the goals of the Paris Agreement and reality. In short, they attested that the average global temperature is the warmest ever recorded (IPCC, 2019a); the amount of ice lost in Antarctica increased six-fold between 1979 and 2017, and the levels of major greenhouse gases have reached new peaks. These documents were presented at the UN Climate Summit (September 2019). Three IPCC special reports released in 2018 and 2019 (a) assessed complementary aspects.

For Andrés Kogan Valderrama (2019), sociologist and editor of the Observatório Plurinacional de Águas (Plurinational Water Observatory) in Chile, we need new “ecoterritorial Gretas” to face the prevailing extraction and enable articulation with other struggles. We must add them to other critical voices, such as the Movements of People Affected by Dams (Movimento dos Atingidos por Barragens, MAB), the São Paulo Pro-Indian Commission (Comissão Pró-Índio de São Paulo, CPI), the Indigenist Missionary Council (Conselho Indigenista Missionário, Cimi); the Pastoral Land Commission (Comissão Pastoral da Terra, CPT); the Via Campesina; the World March of Women; the Land of Rights (Terra de Direitos); the National Coordination of Articulation of Black Rural Quilombola Communities (Coordenação Nacional de Articulação das Comunidades Negras Rurais Quilombolas, Conaq); the Justice and Peace Commission; Crea; the Ecumenical Institute of Theology (Instituto Ecueménico de Teologia); the Pan-Amazonian Ecclesial Network (Rede Eclesial Pan-Amazônica, Repam), the Ecumenical Water Network (Rede Ecuemênica da Água), among others.

For this reason, we have to honour the historical memory of socio-environmental struggles made by people who lost their lives to defend the territories: Berta Cáceres, Chico Mendes, Sabino Romero, Camilo Catrillanca, Isidro Baldenegro, Macarena Valdés,

Sami Flores, Alejandro Castro, Emilsen Manyoma, Laura Vásquez, among many others anonymous.

During the UN Climate Summit, the Faith for Forests campaign was launched. It is a global movement of activism by religious organizations in favour of climate justice. Endorsed by more than 900 religious leaders from 125 countries and representing a network of more than one billion people, the Faith for Forests campaign aims to boost forest protection efforts with new allies. The coordinator of the initiative at the UN Environment, Iyad Abumoghli, said at the time: “The power of religious organizations in protecting forests is still unexplored” (UN Brazil, 2019).



Interreligious Celebration for the Climate

Photo by LWF/Albin Hillert.

WATER: CONFLICTS AND RESISTANCES

Many examples of destruction focused on various concerns about water. Water is central to baptism, the sacrament of new life. This is a reminder that we have a responsibility for those yet to be born to ensure conditions for their potential life and flourishing. The Communion, Provinces, and Dioceses could focus on one major campaign - the human right to water (ANGLICAN PROVINCE OF SOUTH AMERICA, 2018, p. 19).

According to the UN, about 30% of the world's population – 844 million people – do not have adequate access to clean water and sanitation services. By 2050, the global population will have increased by 2 billion individuals, and the demand for water could grow by up to 30%. Agriculture is responsible for 70% of the consumption of water resources even though it occupies only around 10% of the territories. The field is followed by industry, which accounts for 20% of the water used in human activities. Extractive activities such as large dams and hydroelectric plants constitute a private appropriation of water and cause socioeconomic and ecological damage. Domestic use represents only 10% of total consumption, and the proportion of drinking water that is drunk by the population is less than 1% (UN BRAZIL, 2018; ATALC, 2016).

In this scenario, water is the first and most basic reason for inequality. The 2030 Agenda for Sustainable Development, adopted by the UN in September 2015, establishes the 6th Objective:

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater [...];

- 6.4** [...] substantially reduce the number of people suffering from water scarcity;
- 6.A** By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes [...];
- 6.B** Support and strengthen the participation of local communities... (SDG 6).

The Stockholm International Water Institute (SIWI), the Global Water Partnership (GWP) and the UN Inter Agency Task Force on Religion and Development (UNIATF) emphasized the involvement of religious communities in the water issue and their importance in the consolidation of SDG 6 (ECUMENICAL WATER NETWORK, 2018). Since 2006, the World Council of Churches has promoted the Ecumenical Water Network, with the aim of promoting the preservation, responsible management and equal distribution of water for all, understanding water as a gift from God and a human right (OIKUMENE, 2006). The Declaration of the Assembly of the Ecumenical Water Network (OIKUMENE, 2006) consolidated the support for community initiatives and the strengthening of local social control in the management of water resources and in preventing their exploitation for commercial purposes. The Network also urged the governments to prioritize and allocate funds for programs designed to provide local communities with access to water.

In a hard-hitting statement in 2019 condemning the fires in the Amazon region, former bishop of Canterbury and Christian Aid chairman Rowan Williams affirmed the need to “listen with doubled attention to the voices of people who call the forest home – voices deliberately silenced”. Williams also said that the concern for the survival and well-being of these communities “must come before the craving for ‘development’ (quotation marks in the original) that only serves a consumption rage” (WILLIAMS, 2019).

In the same sense, Pope Francis also drew the attention of heads of state to the “omnipotent and selfish elite” that disrespects sacred natural resources. He asked for the respect and acceptance of the “poor, the elderly, the children, the sick, the unborn, the unemployed, the abandoned, those who are seen as disposable” by the same world elite (POPE FRANCIS, 2015b).

Water scarcity – exacerbated by climate change and water-related disasters – can cause tensions that can become violent conflicts between people, communities and countries. In this sense, SDG 6 is also important for preventing conflicts and maintaining peace.

Often, the defence of water against contamination is the motivation for community resistance to the advancement of extractive activities. A collaborative map² identifies environmental conflicts around the world. It is notable how often conflicts over water, mining, oil and agribusiness, for example, are overlapping. According to *Amigos de la Tierra America Latina e Caribe* (Friends of the Earth Latin America and the Caribbean, Atalc), there are currently about 300 socio-environmental conflicts identified by the map in Latin America (PASSOS, 2018)³. It is necessary to emphasize that many cases are not documented, and the estimate is that this number is much higher.

The logic of extracting workforce and nature is not new. Historically, the development of mining in the world has been associated with colonization and imperialism (SOF, 2014). Strategies for the occupation of territories by mining projects disrupt the local economy and tear up the social fabric and ecosystems. Companies

² See: Environmental Justice Atlas, accessed 30 Jan 2020, <<https://ejatlas.org/>>.

³ A survey by the Land Pastoral Commission (CPT) indicates an increase of 40% of conflicts over water in Brazil in 2018 compared to 2017. More than 60% of conflicts over water were carried out by mining companies. 33 conflicts, that is, 17%, took place in the context of hydroelectric plants. Another 26 conflicts (13%) took place in areas dominated by farmers. See also Sampaio, 2019; Maciel, 2018.

dispute and contaminate natural resources and cause erosion, deforestation, desertification and silting of the land. The toxic residues used in the extraction of ores such as gold pollute rivers, soils and the air.

In order to accelerate efforts to address water-related challenges, the United Nations General Assembly declared 2018-2028 as the International Decade of Action “Water for Sustainable Development”⁴. The Decade began on World Water Day on March 22, 2018 and will end on World Water Day, March 22, 2028.

In direct line with SDG 6 of using international cooperation and supporting and strengthening the participation of local communities, Christian Aid has been working with churches, faith-based organizations and social movements to expand ecumenical engagement for water in Brazil. In this sense, case studies were developed (in Part II of this publication) to better understand the dimensions of water conflicts in the country. The studies are representative of situations that are repeated in several Brazilian states and are the reflection of political and economic structures where the rights of communities are violated and neglected by private interests.

COSMOGONIES: THE SPIRITUAL DIMENSION OF WATER

Water, food and climate justice are the key to a sustainable future (ECUMENICAL WATER NETWORK).

⁴ See also: International Decade for Action on Water for Sustainable Development, 2018-2028, accessed 3 Feb 2020, <<https://www.un.org/en/events/water-decade/>>.

The earth is the Lord's, and everything in it, the world, and all who live in it; for He founded it on the seas and established it on the waters (Psalms 24.1,2).

In May 2018 in Lima, the South American province of the Anglican Church promoted the meeting "Climate Change and the Church". The bishops rescued the 2008 Lamberth Conference resolution:

"Indigenous peoples have traditional understandings of the earth as a gift of the Creator and of their relationship to it and its creatures are one of interconnectedness and responsible caring. The indigenous peoples have reminded us that we are not aliens in a wilderness to be conquered, but integral parts of the created order, as are plants and animal, which are to be cherished and nurtured. The Anglican Indigenous Network could provide good resources for the Communion to develop these ideas more fully" (ANGLICAN PROVINCE OF SOUTH AMERICA, 2018, p. 19).

In the context of the Alternative World Water Forum (Fama), in April 2018 in Brasília, Christian Aid organized the Ecumenical Seminar "Water as a common good: challenges for the peoples of Latin America and the Caribbean". Pastor Romi Bencke (Evangelical Church of Lutheran Confession in Brazil and general secretary of the National Council of Christian Churches in Brazil – Conic) pointed out the objectives of the meeting:

- Systematize information for action by ecumenical organizations on the issue of water in Latin America and the Caribbean;
- Establish a connection between local strategies and international incidence;

- Expand the coordination among ecumenical organizations and offer inputs for a regional ecumenical declaration on water.

At the seminar, it was possible to share the meaning of water in the cosmogony of native peoples, as well as the power of destruction of transnationals in culture and nature.

The anthropologist Lévi-Strauss, who studies the myths of the Amerindian peoples, was surprised that people so distant – from South America to North America – were able to elaborate mythical narratives that connect in so many points (BASQUES, 2012). Myths, he said, think among themselves, at the same time as they think about the society from which they come. However, myths do not belong to a single society as they travel among them and thus transform themselves. Next, we will see some myths of the participants native peoples related to water and the organization of life.

Aymara Methodist theologian Vicenta Mamani (Ecumenical Institute of Theology – Iseat) from Bolivia exposed the concept of water in the Andean world in the Aymara worldview:

“In the Aymara culture we say that water is the milk of mother Earth or we also say that it is the blood of mother Earth or the vein of mother Earth. So, it is the gift of God. Water is God’s free gift”.

For the Aymara, water is in three spaces: above the sky, next to the clouds and on the Earth in the form of rain (transformed, in turn, into rivers, lakes and the ocean. That is why it is considered as “water of life”). Water is stored in ceramic vats because it breathes, gives energy and has its own spirit (Umamace). The water heals. Therefore, it was forbidden to “imprison” the spirit of water in a bottle.

Water is used both for consumption and for bathing with natural herbs to remove bad energy, circulatory problems and even

for menopausal symptoms. Dreams about water are symbolic and prophetic: crystal clear water means health; crossing a river when you are sick means healing and hope; murky waters announce illness and sorrows.

The government before Evo Morales tried to privatize water and the whole people rose up (“the water war”). The people expelled engineers from the transnational corporations “with sticks and stones” and won the human right to water – which cannot be privatized. However, the river that runs through its village – Suches, so called because of the *suche* fish – was crystal clear and the community used the river for consumption and for animals. Since the establishment of a mining company, the river is already almost dead. There are no more fish, and contamination is reaching Lake Titicaca.

Father Justino Resende (Rede Ecclesial Pan-Amazônica – Repam) from Brazil belongs to the Tukano group. For his people, the sacred stories relate water as *Opekātaro* (lake of milk). The original name of his people is *Utāpinopona*, “Son of the Stone Snake”, the snake that brought them to earth from inside the water. Water for them is “milk of life”, *Toko Taro*, the origin of life. The same names, *Opekātaro* and *Toko Taro*, are used to refer to the maternal uterus. Just as the maternal uterus generates life, so the world of water is the uterus of the Universe. Because of this, for them, it was women who brought water to the Earth level.

Many indigenous peoples were brought / taken by aquatic beings: *Cobra de Pedra*, *Piro Porã*, *Wai Massa*. They believe that God is in the waters, because they generate lives, fertilize the whole creation and quench the thirst. The waters are full of energy. The waters of the rivers, where they still exist, flow exuberantly forward, at different rates and follow their destinations.

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tion and quench the thirst. The waters are full of energy. The waters of the rivers, where they still exist, flow exuberantly and always forward, with different rhythms, and follow their destinations.

“The waters generate lives and also deaths, they are beautiful, strong, treacherous and dangerous just like any of us. Water is life, it has feelings, can be happy, can be sad, it also dies. Our indigenous people were great philosophers of understanding the cosmos. The academy for them is the Universe, the forests, the waters which are teaching. We indigenous people from the Upper Rio Negro region perform our rituals according to the cycle of human life and nature” (Father Justino Resende).

Lévi-Strauss found it remarkable that the presence of white people was so soon absorbed in myths before 1500. He argues that the white people were envisaged in a constitutive structure of indigenous thought: every position is inseparable from its opposition. In the Tupinambá myth, the creation of Indians implies the creation of non-Indians; or, taking things from the other end, the fact of the existence of Whites is put as constitutive of the fact of the existence of the Indians. The ‘self’ and ‘other’ positions have been flowing through the myth since long before 1500: creators and creatures, humans and non-humans, relatives and enemies, and so on. This “openness to the other” logic was manifested, says Lévi-Strauss, since the first contacts with whites. Unfortunately, as we know, the reciprocal has never come real: the other (we) had a very different idea of what the other should be (RICARDO, 2000).

For the Tukanos, the spirits are in still water, in lakes, in thickets, in mud, in swamps, in marshes. For them they were invisible beings, but science has shown that they are microorganisms invisible to the naked eye, but visible with microscopes: bacteria, viruses, mites, protozoa, algae and fungi. Indigenous myths connect

human behaviour to cosmic, astronomical and meteorological phenomena. Shamanism and rituals serve to ensure the care and maintenance of a cosmic order – or even of the human condition – that must remain in tune, like a musical instrument: in balance (Basques, 2012). With the degradation of nature, indigenous people see that they also are dying little by little. “With the waters, many rituals die, many ceremonies die, many peoples die.”

Yuri Paulino (MAB) said that the vision of water as a commodity kills the environment and the people who defend it. In this view there is the consumer, not the people. For him, it is necessary to create alternatives to challenge capitalism with other perspectives on the organization of life. It must be shown that the capitalist way of life is not the right way of life for humanity. The real experiences, ideas and shared knowledge accumulate and point to a model of another society and show the contesting resistance to that model.

“In Belo Monte, over there in an indigenous village, in a community ... The happiness of having 1,000 families recognized who will now be able to have their homes! But we feel the strengthening because we are not isolated, we know that, everywhere in the world, including because of these organizations that are here, we are connected with other people who think like us. And that gives us a great security to continue our struggle” (Yuri Paulino).

Ana Laura Alvarez (Creas) from Argentina exposed the “practical ecumenism” that believes in mutual learning, in the exchange of knowledge and in the sharing of ancestral wisdom. As an example, she spoke about the construction of wells in the Great Chaco region, based on community initiatives and driven by Creas and world church service.

Veronica Flachier (Ecumenical Water Network – wcc) from Ecuador stated that, due to her Andean identity, she would have to think

beyond Christianity. The Andean worldview interprets the world based on the integrality, on interconnection, on the interdependence of all. Opposites integrate to construct and not to destroy. The Andean concept of *Pachamama* encompasses this worldview. The word *Pachamama* comes from two Quechua words: *pacha* which means owner of time and space, where life and history take place.

The *Pacha* is everything that exists in the Universe where everything is connected and interlaced, it is the reality without forks. And *mama* is a word of many semantic meanings that refers to what gives us life, what heals, protects and nourishes us, that is why, for the Andean peoples, the world, *Pachamama*, is the principle that describes the origin and preservation of life in its maximum expression. For this reason, the water crisis means a deep crisis of values that affects everything.

Once again, it is women who suffer most: it is them who spend several hours a day to obtain pure water. It is essential to claim the meaning of the importance of the God Sun, Mother Earth and Mother Water for the spirituality of the inhabitants of this American land. Latin America and the Caribbean in its extensive territory is one of the richest and at the same time most unequal regions in the world. The South American region holds 33% of the world's renewable water resources, it is the area with the greatest availability of water in the world. However, inadequate political management prevented universal access to water.

To regulate human control over the environment, Serres (1999) advocates extending contractuality to nature as an addendum to the social contract. The "natural contract" would be a manifesto of environmental rights for the control of man over his control of nature. For him, the social contract collapsed, and *hybris* opened up, that is, widespread immoderateness and intolerance. In Ecuador and Bolivia, the principles of *buen vivir*, inspired by ancestral cultures entered the Constitution. In Ecuador, nature appears as a subject of rights, which means a historic declaration for the en-

vironment worldwide. It is necessary to highlight that the rights of nature in relation to the rights conferred on the human species enjoy the same hierarchy and are interdependent. The good living (*buen vivir*) is a proposal that is born from the original peoples as a strategy of a common life. Good living is an alternative that, in the face of development ideas, is a concept of collective well-being that emerged powerfully in the post-colonial discourse. Good living is life in plenitude, is knowing how to live in harmony and balance with Mother Earth's cycles of life and history. It means first to know how to live and then live together. You cannot live well if others live poorly or if you cause harm to mother nature. Living well means understanding that the deterioration of some species is the deterioration of a people.

“Good living has thirteen principles, the number 13 places water as a mother and says: knowing how to give and knowing how to receive, recognizing that life is the union of the world of many beings and many forces, in life everything flows, we receive and we give, the interaction of the two forces generates life, one has to know how to give with blessings, to know how to give thanks for all that we receive, to receive the brightness of Father Sun, the strength of Mother Earth, to flow with Mother Water and all that life gives us” (Vicenta Mamani).

PERSPECTIVES

“If I die before you, I leave the impossible as a legacy.” And Darwish asks, “Is the impossible very far away?” And Saïd’s voice responds: “A generation away” (PÀL PERLBART, 2018).

Pope Francis makes an inflection in the Cartesian and Western logic when expressing his desire for a Church “with an Amazonian face and an indigenous face” (MIOTTO, 2018). At the time, he defended a less utilitarian form of relationship with the Amazon and with nature – something to be learned from the original peoples. He praised the indigenous peoples’ Good Living practices as opposed to “neo-extractivism” and to the “new colonialisms”.

“We who do not inhabit these lands need its wisdom and knowledge to be able to enter, without destroying, the treasure that this region contains. [...] Their lives are a cry to the conscience of a lifestyle that is not able to dimension its own costs. [...] The Amazon, more than a reserve of biodiversity, is also a cultural reserve that must be preserved in the face of new colonialisms” (MIOTTO, 2018).

The Pan-Amazonian Synod’s *Instrumentum Laboris* says that the indigenous world can resonate and help in the ecological conversion of the Church and the planet, since it shows values that the modern world does not have. “This is about the Amazon reality rising out of the Amazon and having planetary repercussions” (INSTRUMENTUM LABORIS, 2019, p. 52).

The word “synod” comes from the Greek *synodos* and means “meeting”. Representatives of Judaism, Evangelical Faith, Buddhism, Kardecism and Candomblé were present in an interreligious act in support of the Amazon Synod (2019). On the occasion, the Synod rapporteur stated:

“Together we will think about the great causes of humanity. The Synod is not closed, it is not exclusive, it is inclusive. The Amazon crisis is serious. We are experiencing a great socio-environmental crisis” (Dom Cláudio Hummes).

“When Pope Francis calls the Synod, he calls it also in an ecumenical sense. He calls for dialogue. The first step was to listen to the different peoples that inhabit this great Pan-Amazonian territory, which covers different countries, and where thousands of peoples live, with different languages, customs, cultures and religiosities” (LEMKE, 2019)

Pastor Lemke, president of Conic, says that life in the Amazon is wounded, “fallen like the one assaulted in the Gospel of Luke (10.25-35), at which everyone passes by; only a Samaritan reaches out and rescues him”. He highlights the mission developed by the Evangelical Church of Lutheran Confession in Brazil with the original peoples, “making a presence with the peoples for love, in coexistence”.

From October to December 2019, Churches, Councils and Faith-based Organizations held ecumenical vigils for the Amazon. The action marked the public launch of the declaration *Somos Amazônia* (We are Amazon)⁵, signed by FEACT, Conic, Christian Aid, Iseat (Bolivia) and the Inter-Church Commission for Justice and Peace (Colombia). The signatories claim to have learned “to hear the cry of the Forest and all its beings and cultures”, recognizing that “many times we were insensitive and deaf to this cry that is born in the heart of the Amazon” and for tolerating in the past “supremacist and destroying the diverse presence of God in the Amazon” (CONIC, 2019).

“We learned to abandon our preconceived ideas about the region [...] and to interpret the signs of death of eco-

5 For more resources resulting from this action, see, accessed 3 Feb 2020,: <<https://conic.org.br/portal/noticias/3292-vigilia-ecumenica-de-solidariedade-e-justica-pela-amazonia>>

conomic, cultural, religious and political models of intensive and predatory extractivism: we often do not raise our prophetic voice in the defence of peoples, species and territories facing megaprojects in the region, financed with local and global capital that promote the climate crisis” (CONIC, 2019).

The letter inscribes the Pan-Amazonian Synod of the Catholic Church and *Laudato Si'* in the interfaith effort in the fight against the environmental and spiritual devastation of the peoples.

As Veronica Flachier said, one of today's enormous challenges is to retrieve hope. Pastor Lemke says that hope has always been one of his main characteristics. He believes that, after the Synod, we will all be, in one way or another, influenced by the light and hope of the peoples of the Amazon:

“The Church will hear the voice of those men and women who have never had a voice. They are voices worthy of the manifestation of the Gospel of Christ that liberates the small and oppressed. They are voices from Pan-Amazon crying out in our time. Whoever has an open ear for cries and announcements will hear the good message of Jesus, the Christ, in grace and ecumenical faith” (LEMKE, 2019).

Lévi-Strauss inscribes anthropology as a counterpoint to humanism “from the privileged classes”: to the “exotic” humanism linked to industrial and commercial interests; to the “aristocratic” humanism of the Renaissance and to the “bourgeois” humanism of the 19th century (LÉVI-STRAUSS, 2012, p. 32). For him, anthropology marks the advent of a doubly universal humanism: seeking its inspiration in the most humble and despised societies, it proclaims “that nothing human should be alien to man” (LÉVI-STRAUSS, 2012, p. 33). Rescuing the *prime* meaning of anthropology, *Laudato Si'* states

optimistically: “Nothing in this world is indifferent to us” (LS, 3). “There can be no renewal of our relationship with nature without a renewal of humanity itself. There can be no ecology without an adequate anthropology” (LS, 118).

All religions are proposing a “regeneration of progress” with the adoption of a systemic view of the ecological catastrophe that we are suffering, where no branch of knowledge can be neglected. In other words, they defend a new view of science and society that perceives living beings as socio-cultural systems and interdependent ecosystems.

In recognizing the value of nature itself, this ecumenical alliance must unite not only with the oldest worldviews of the original peoples, but also with what is most advanced in ecological science. “Science and technology are wonderful products of a God-given human creativity” (LS, 102).

Morin points out that the word “religion” does not only mean reconnection between members of the same faith, but also the connection with the superior forces of the cosmos:

We reach cosmic reconnection through biological reconnection, which comes to us through anthropological reconnection, which manifests itself in solidarity, fraternity, friendship and love, which is the supreme anthropological reconnection. Love is the highest expression of ethics (MORIN, 2005, p. 37).

BIBLIOGRAPHY

ALVES, Rubem

O que é religião. São Paulo: Brasiliense, 1993.

ANGLICAN PROVINCE OF SOUTH AMERICA

Climate change and the church. Lima: Anglican Church, 2018.

<<https://aco.org/media/339906/ang-prov-southamerica-climate-change-and-the-church-lima-2018-report.pdf>>.

Accessed 3 Feb 2020.

ATALC

Informe: estado del agua en América Latina y el Caribe. Amsterdam:

Amigos de la Tierra Internacional, 2016. Disponível em: <https://www.academia.edu/33159204/Informe_Estado_del_Agua_en_Am%C3%A9rica_Latina_y_el_Caribe>. Acesso em: 3 fev. 2020.

BACON, Francis

Bacon. São Paulo: Abril, 1979. (Coleção Os Pensadores).

BASQUES, Messias

“Claude Lévi-Strauss e o mito da mitologia”. *Revista Brasileira de Ciências Sociais*, 27 (79): 209-212, jun. 2012. Accessed 3 February 2020 <<https://dx.doi.org/10.1590/S0102-69092012000200015>>.

BOFF, Leonardo

E a igreja se fez povo. Petrópolis: Vozes, 1986.

Ecologia: grito da terra, grito dos pobres. São Paulo: Ática, 1995.

BRUM, Eliane

“A potência da primeira geração sem esperança”. *El País Brasil*, 2019.

Accessed 3 February 2020 <https://brasil.elpais.com/brasil/2019/06/05/politica/1559743351_956676.html>.

CONIC

Somos la Amazonia: compromisso e fidelidade de fé. Carta publicada durante o Sínodo da Amazônia, assinada por instituições ecumênicas, 2019. Accessed 3 February 2020 <https://www.conic.org.br/portal/files/CartaSomosLaAmazonia_port.pdf>.

DURKHEIM, Émile

As formas elementares da vida religiosa: o sistema totêmico na Austrália. São Paulo: Martins Fontes, 1996.

ECUMENICAL WATER NETWORK

“Water for all: wcc high level panel reaffirms faith communities contribution to achieve sdg 6”. *The Ecumenical Water Network*, What we do, Genebra, 13 jul. 2018. Accessed 3 February 2020 <<https://water.oikoumene.org/en/whatwedo/news-events/water-for-all-wcc-high-level-panel-reaffirms-faith-communities-contribution-to-achieve-sdg-6>>.

INSTITUTO HUMANITAS UNISINOS

Laudato si’: a íntegra e um “guia” para a leitura da Encíclica. *IHU*, 18 jun. 2015. Accessed 3 February 2020 <<http://www.ihu.unisinos.br/noticias/543659-laudato-si-um-qguiaq-para-a-leitura-da-enciclica-a-integra-do-texto>>.

INSTRUMENTUM LABORIS

Amazônia: novos caminhos para a igreja e para uma ecologia integral. Vaticano: 2019. Accessed 6 February 2020 <<http://www.sinodoamazonico.va/content/sinodoamazonico/pt/documentos/instrumentum-laboris-do-sinodo-amazonico.html>>. .

IPCC

“Special report. Global Warming of 1.5 °C”. *The Intergovernmental Panel on Climate Change* (IPCC), New York, 2018. Accessed 6 February 2020 <https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_Low_Res.pdf>.

Full_Report_Low_Res.pdf>.

“Landmark United Science report informs climate action summit”. *The Intergovernmental Panel on Climate Change* (IPCC), New York, 22 set. 2019a. Accessed 3 Feb 2020 <<https://www.ipcc.ch/2019/09/22/united-in-science-report-climate-summit/>>

“Climate Change and Land”. *The Intergovernmental Panel on Climate Change* (IPCC), New York, 2019b. Accessed 3 February 2020 <<https://www.ipcc.ch/report/srccl/>>.

JONAS, Hans

O princípio responsabilidade: ensaio de uma ética para a civilização tecnológica. Trad. Marijane Lisboa e Luiz Barros Montez. Rio de Janeiro: Contraponto, 2006.

LEMKE, Inácio

“Sínodo da Amazônia: entrevista com o Pr. Inácio Lemke”. *Conic*, Brasília, 21 out. 2019. Entrevista concedida ao site do Conselho Nacional de Igrejas Cristãs do Brasil. Accessed 3 Feb 2020 <<https://www.conic.org.br/portal/noticias/3301-sinodo-da-amazonia-entrevista-com-o-pr-inacio-lemke>>

LÉVI-STRAUSS, Claude

A antropologia diante dos problemas do mundo moderno. Trad. Rosa Freire D'Aguilar. São Paulo: Cia. das Letras, 2012.

Antropologia estrutural dois. Tradução: Beatriz Perrone-Moisés. São Paulo: Cosac Naify, 2013.

LISBOA, Marijane

Ética e cidadania planetárias na era tecnológica: o caso da proibição da Basileia. São Paulo: Civilização Brasileira, 2009.

MACIEL, Camila

“Usos da água e desigualdade na oferta precisam ser discutidos, diz especialista”. In: *Revista ihu*, São Leopoldo, 27 fev. 2018. Accessed 3 Feb 2020 <<http://www.ihu.unisinos.br/78-noticias/576424-usos-da-agua-e-desigualdade-na-oferta-precisam-ser-discutidos-diz-especialista>>.

MIOTTO, Tiago

“Precisamos escutá-los’: Papa Francisco diz que povos indígenas nunca estiveram tão ameaçados”. *Conselho Indigenista Missionário (CIMI)*, 21 jan. 2018. Accessed 3 February 2020 <<https://cimi.org.br/2018/01/precisamos-escuta-los-papa-francisco-diz-que-povos-indigenas-nunca-estiveram-tao-ameacados/>>.

MOORE, Jason

“El auge de la ecología-mundo capitalista (i)”. *Laberinto*, Málaga, 38, pp. 9-26, 2013. Accessed 6 Feb 2020 <<https://jasonwmoore.com/wp->

-content/uploads/2017/08/Moore-El_Auge_de_la_ecologia-mundo_capitalista__Part_I__Laberinto__2013.pdf>.

MORIN, Edgar

Entrevista ao programa Roda Viva, tv Cultura, 18 dez. 2000 Accessed 6 Feb 2020 <<https://www.youtube.com/watch?v=AOBIloWb-Po8>>.

Introdução ao pensamento complexo. Trad. Eliane Lisboa. Porto Alegre: Sulina, 2005.

O enigma do homem: para uma nova antropologia. Trad. Fernando de Castro Ferro. Rio de Janeiro: Zahar, 1975.

O método 6: ética. Trad. Juremir Machado da Silva. Porto Alegre: Sulina, 2011.

NO VATICANO

“Papa consulta Boff para escrever nova encíclica”. *Uol Notícias*, 2 out. 2014. Accessed 6 Feb 2020 <<https://noticias.uol.com.br/ultimas-noticias/ansa/2014/10/02/papa-consulta-boff-para-escrever-nova-enciclica.htm>>.

ODS 6

“Água potável e saneamento: assegurar a disponibilidade e gestão sustentável da água e saneamento para todas e todos”. *Nações Unidas Brasil*. Notícias ODS 6. 17 objetivos para transformar nosso mundo. Accessed 3 Feb 2020 <<https://nacoesunidas.org/pos2015/ods6/>>.

OIKUMENE

“5. Statement on water for life”. *World council of churches*, 23 fev. 2006. Accessed 3 Feb 2020 <<https://www.oikoumene.org/en/what-we-do/resources/documents/assembly/2006-porto-alegre/1-statements-documents-adopted/international-affairs/report-from-the-public-issues-committee/water-for-life>>.

ORENSTEIN, JOSÉ & MAMMI, ANTONIO

“O discurso de Greta Thunberg sobre o clima: como ousam?” *Nexo*, São Paulo, 23 set. 2019. Accessed 3 Feb 2020 <<https://www.nexojornal.com.br/podcast/2019/09/23/O-discurso-de-Greta-Thunberg-sobre-o-clima-como-ousam>>.

PÂL PERLBART, Peter

“Negros, judeus, palestinos: do monopólio do sofrimento”.

Percurso, São Paulo, 60, ano xxx, jun. 2018. Accessed 6 Feb 2020

<http://revistapercurso.uol.com.br/index.php?apg=artigo_view&ida=1292&ori=edicao&id_edicao=60>.

PAPA FRANCISCO

Carta Encíclica *Laudato Si'* do santo padre sobre o cuidado da casa comum. Vaticano: 2015a. Accessed 6 February 2020 <http://w2.vatican.va/content/francesco/pt/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html>

“Discurso do santo padre. Viagem apostólica do Papa Francisco a Cuba, aos Estados Unidos da América e visita à sede da Organização das Nações Unidas”. *Libreria Editrice Vaticana*, 25 set. 2015b. Accessed 3 Feb 2020 <http://w2.vatican.va/content/francesco/pt/speeches/2015/september/documents/papa-francesco_20150925_onu-visita.html>.

PASSOS, Cristiane

“Lançamento do relatório anual da cpt destaca o aumento da violência no campo e dos conflitos pela água”. *Comissão Pastoral pela Terra* (CPT), Massacres no campo, 7 jun. 2018. Accessed 3 Feb 2020 <<https://www.cptnacional.org.br/multimedia/12-noticias/conflitos/4380-lancamento-do-relatorio-anual-da-cpt-destaca-o-aumento-da-violencia-no-campo-e-dos-conflitos-pela-agua>>.

RICARDO, Carlos Alberto

Povos indígenas no Brasil: 1996-2000. São Paulo: Instituto Socioambiental, 2000.

SAMPAIO, Cristiane

“Conflitos por água batem recorde no país e chegam a 276 casos: aumento de 46% em 2018”. *Brasil de Fato*, 12 abr. 2019. Accessed 3 Feb 2020 <<https://www.brasildefato.com.br/2019/04/12/conflitos-por-agua-batem-recorde-no-pais-e-chegam-a-276-casos-aumento-de-40-em-2018>>.

SERRES, Michel

Entrevista ao programa Roda Viva, tv Cultura, 8 nov. 1999. Accessed 6 Feb 2020 <<https://www.youtube.com/watch?v=GaoJ--SGA9U>>.

Hominescências. O começo de uma outra humanidade? Trad. Edgard Carvalho e Mariza Bosco. Rio de Janeiro: Bertrand, 2003.

O incandescente. Trad. Edgard Carvalho e Mariza Bosco. Rio de Janeiro: Bertrand, 2005.

Variações sobre o corpo. Trad. Edgard Carvalho e Mariza Bosco. Rio de Janeiro: Bertrand, 2004.

SLOTERDIJK, Peter

No mesmo barco: ensaio sobre a hiperpolítica. 2. ed. Trad. Claudia Cavalcanti. São Paulo: Estação Liberdade, 1993.

SOF

Práticas feministas de transformação da economia: autonomia das mulheres e agroecologia no Vale do Ribeira. São Paulo: sof, 2018. 84 p. Accessed 6 Feb 2020 <<http://www.sof.org.br/wp-content/uploads/2018/03/Praticas-feministas-portugu%C3%AAs-web1.pdf>>.

UN BRAZIL

“Em dia mundial da água, ONU defende soluções para problemas hídricos baseadas na natureza”. *Nações Unidas Brasil*, 1º mar. 2018. Accessed 6 Feb 2020 <<https://nacoesunidas.org/em-dia-mundial-da-a-gua-onu-defende-solucoes-para-problemas-hidricos-baseadas-na-natureza/>>.

“Campanha da onu meio ambiente visa unir religiões em prol da conservação”. *Nações Unidas Brasil*, 1º out. 2019. Accessed 6 Feb 2020 <<https://nacoesunidas.org/acao/meio-ambiente/>>.

VALDERRAMA, Andrés Kogan

“Gretas ecoterritoriais para enfrentar a crise socioambiental”. *Revista IHU*, São Leopoldo, 1º out. 2019. Accessed 3 Feb 2020 <<http://www.ihu.unisinos.br/78-noticias/593031-gretas-ecoterritoriais-para-enfrentar-a-crise-socioambiental>>

WILLIAMS, Rowan

“Incêndios na Amazônia são sinal vergonhoso da nossa sanha por

excessos". *Brasil de Fato*, 13 set. 2019. Accessed 3 Feb 2020 <<https://www.brasildefato.com.br/2019/09/13/artigo-or-incendios-na-amazonia-sao-sinal-vergonhoso-da-nossa-sanha-por-excessos/>>.

PART II

CASES STUDIES

WOMEN CONSTRUCTING ALTERNATIVES FOR ACCESS TO DRINKING WATER IN LATIN AMERICA¹

Renata Moreno (SOF²)

Water-related conflicts have been increasingly frequent and visible all over the world, and particularly in Latin America and the Caribbean, a region where an important volume of fresh water is concentrated. There is a dispute over how water is conceived by the different actors involved in the conflicts: whether it is an additional resource for the profitable businesses of large companies or whether it is a right and a common good, a basic source of life and essential for the production of life.

In fact, without water, there is no life, just as several productive processes cannot be feasible without water. The presence of women in the struggles over water, and in the collective experiences of guaranteeing access to water for consumption and production is undeniable when looking at the daily lives of the territories. Women place themselves in the forefront of resistance to projects by large companies, facing violence, threats and attacks. However, they are often denied as subjects in negotiations and disputes with companies, and their views and needs are often overlooked in the performance of public authorities.

¹ The case study published here was presented at the Seminar “Water as a Common Good” in March 2018 in Brasília.

² Sempreviva Organização Feminista (Ever-Alive Feminist Organization) – partner organization of Christian Aid in Brazil.

This text reaches out from the experiences and resistance of Latin American and Caribbean women in defence of water, in a feminist perspective on conflicts and challenges. The study was guided by the objective of composing a panorama of different expressions of the conflicts over water in the region, thus allowing to find common elements and to weave an integrated feminist analysis. The criterion for defining the selected cases was the concrete experience of women organization in the territories, linked to processes of construction of articulation and broader alliances, both nationally and regionally, which allow expanding the scope and the political consequences of the proposed analysis. In this study we consider conflicts in an expanded way, going beyond the cases in which the communities face a specific project or company. We also address organizational processes related to access to water that are object of conflicts with the State or with its absence.

The discussion on each case involved online interviews with women leaders involved in different processes of articulation, resistance and struggle in this region, combined with the systematization of information sources prepared by civil society organizations in the socio-environmental field.

The interviews were carried out in November and December 2018 with a World March of Women activist in the northern region of Peru, who monitors the peasant communities' resistance to mining projects; one member of *Censat Agua Viva – Amigos de la Tierra Colombia* (Living Water – Friends of the Earth Colombia), responsible for the water area of this organization; a member of the Movement of People Affected by Dams (MAB, *Via Campesina*) and of the Latin American Movement of Affected by Dams (MAR); a member of the 8th of March Feminist Centre (CF8) and the Semi-Arid Articulation (ASA), which has been exchanging with communities in Guatemala to build infrastructure for access to water. Only in the case of El Salvador was used a systematization carried out by Cesta, an organization that integrates Friends of the Earth in that country.

WHY WOMEN DEFEND WATER

In a large part of the resistance against the advance of corporate projects aimed at the accumulation of capital, women are actively involved and are the protagonists of actions of mobilization, confrontation, dialogue with the population and articulation. Water, energy, land for food production and biodiversity are elements that guarantee the sustainability of life and are of interest to women who are the first to suffer from their scarcity. The concept of sexual division of labour (KERGOAT, 1996) makes it possible to analyse the dynamics that separate and hierarchize the work of men and women and structure patriarchal power relations, forming the material basis for the oppression of women in the capitalist system.

The way in which the sexual division of labour manifests can vary between different contexts and realities, but, across our continent, there is the common thread that women are in charge of domestic work and daily care, both of which are fundamental to life. The tasks are many: production and preparation of food, cleaning of environments, of clothes and personal hygiene and the care of people close to them – whether dependent or not. Water is the essential basis for carrying out domestic and care work (JOSEPH, 2010). The availability or not of drinking water changes the conditions, times and energy spent by women in carrying out these activities. In places where water is not available, it is part of the daily life of women to walk long distances to fetch water.

The strategies of survival and production of living ensured by women are constantly threatened by the economic interests of large companies and of the capital. The projects – usually led by large companies, national and transnational, often in public-private partnerships – are organized for the production and circulation of capital with a view to profit and not for improving the quality of life of communities. The perspective of the feminist economy allows us to see not only the different impacts and motivations of women

to resist, but also sheds light on how these activities are essential for life and for the economy as a whole. This helps us to understand what is at stake: it is a conflict of capital against life.

WATER CONFLICTS IN LATIN AMERICA AND THE CARIBBEAN

Conflicts involving water are spread around the world, depending on the availability of fresh water. Despite being a planet mostly composed of water, fresh water represents less than 3% and not all of it is available for human consumption and production.

Often, community resistances to the advancement of extractive activities occur to avoid contamination. On a collaborative map¹ that identifies environmental conflicts around the world, it is remarkable how often conflicts over water, mining, oil and agribusiness, for example, are overlapping. According to Atalc (2016), there are currently about 300 socio-environmental conflicts in Latin America: 72 in Colombia, 58 in Brazil and 31 in Peru. However, many cases are not documented, and the number is estimated to be much higher.

The conflicts are motivated more by human action, by the model of production, reproduction and consumption and less by the scarcity of water resulting from geographical conditions. The experience in the Brazilian semiarid region is an example of how the problem in itself is not geographic, but political: a drought industry forged by the structure of the latifundium and coronelism (MOURA, M.; MOURA, I. & LOPES, 2006). The development of technologies consistent with the territory and popular organization is, therefore, fundamental for living with the semiarid region.

Thus, it is necessary to understand the conflicts over water as political, economic, cultural and social. Another fundamental aspect is that the forms of water privatization are not restricted to treatment and distribution services – the production of bottled

water, for example, is sold worldwide at high prices. The private appropriation of water also occurs in its extensive use in extractive activities, in the construction of large dams and hydroelectric plants that serve companies more than populations. The destruction of water sources for communities is also caused by contamination by industrial activities such as agribusiness and oil. Agriculture occupies just over 10% of the territories, but accounts for the use of 70% of the total of water extracted from aquifers, rivers and lakes (Atalc, 2016).

It is a fact that there are differences in the use of water by different models of agriculture. Large monocultures, such as eucalyptus and soy, use much more water than small-scale agriculture. Conflicts affect the lives of entire peoples: contamination destroys life in rivers and violently displaces communities from their territories. In this sense, the so-called “green economy” is also not beneficial, as it expands the control of territories, financializes nature and thus blocks the subsistence of native peoples and peasants. The challenge, therefore, is to construct a systemic reading of the causes of water shortages as well as their conflicts, as the peoples involved in different processes of struggle and resistance have done. Another structural factor in conflicts is environmental racism: it is Indigenous peoples and Afro-descendant populations who suffer from the violence of capital in the territories.

WOMEN IN THE POPULAR ORGANIZATION FOR ACCESS TO WATER

In the following, we approach experiences of resistance with the absence of the State (Guatemala); with the presence of the State that pressures the communities in the commercial logic (Colombia); or against companies in the privatization of water sources (El Salvador). These are examples of processes that present themselves in a similar way in different parts of Latin America.

Worldwide, around 20% of people do not have access to water in minimally satisfactory conditions. The inequality of class, race and ethnicity conditions this access.

*Community self-management vs. mercantile logic driven by the State: the struggle of community aqueducts in Colombia. Construction process and struggle of the National Network of Communitarian Aqueducts Colombia (Red Nacional de Acueductos Comunitarios Colombia, RNACC)*³

RNACC fights for the right to water as a public common good and self-management, recognizing community aqueducts as “political subjects who historically are in charge of self-management of water” (Atalc, 2018). This is an organization form present in several countries in Latin America (Bolivia, Ecuador, Peru, El Salvador, Guatemala, Mexico, Colombia). Self-management is based on solidarity, collective decisions and the work of communities. In rural areas, people relate directly to water sources, which is why they monitor, monitor and protect them. In Colombia there are some community aqueducts in peri-urban areas, but most are in rural areas. There are currently about 15,000 community aqueducts in the country.

The construction of each aqueduct is related to the absence of the State and is configured as a self-organized water service. Both the need and the concrete practice of the aqueducts is related to the role of women in domestic work, which still needs to be more visible, because they exercise a leadership that is not discursive, but that of “concrete doing”. The role of women is important in

³ Based on an interview with a member of Censat / Amigos de la Tierra Colombia.

the common history of community aqueducts, precisely because of this shared experience of carrying water over great distances for daily domestic work. This was its reality until the construction of the community aqueduct 35 years ago that converted the region into a peri-urban area.

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Community aqueducts are currently in tension with privatization processes. In recent years, government policies have been hegemonically oriented towards water privatization and financialization. In 2008, the “water bonuses” policy was created, a speculative exercise that, in the name of financing drinking water and sanitation projects, generated an economic loss for 117 municipalities. These, in addition to getting into debt, were left with most of the works unfinished or inoperative.

The “Water for the Rural Area” policy, unprecedented in terms of organizing government action aimed specifically at rural communities, recognizes the existence of different schemes for the provision of water services. However, the service must be provided by agents specialized in public-private or private alliances (Atalc, 2018). This makes community water management being absorbed by commercial logic, transforming aqueducts into private companies. This scheme has pressed for the privatization of aqueducts. The great dilemma faced is the adaptation to the imposed rules:

the aqueducts can have some protection (related to the defence of the territory), but, on the other hand, the community character is at risk. With the concession of the use of water, considering that the law of natural resources determines that the priority use is for human consumption, these organizations could “shield” the territory, being a way to defend it from extraction. However, this is not a definitive guarantee. In addition, the concession of the use of water in these terms requires the fulfilment of rules of a privatizing nature. Specifically, federal government regulations require that community aqueducts become private companies, or lead them to be absorbed by private operators, or even by mixed municipal companies (Atalc, 2018).

Community water self-management has five interlinked aspects: organizational, environmental, technical, legal and administrative. The diversity of the forms, e.g. the pipeline construction and maintenance work, accompanies the diversity of aqueducts across the country. Below, the organization of work in two community aqueducts is described. The Caquetá aqueduct, in the Amazon region, consists of 37 families. Its entire functioning is defined by assemblies. People occupy positions on a rotating basis, and each month a family is in charge of ensuring the maintenance of the tubes, checking that they are functional and clean. When work is more complex, all families engage in two-day *mutirões* (collective work). Men and women of all ages participate. In addition to the construction, repair or cleaning of tanks and pipes, there is also a collective kitchen. Each year they change their president, who also takes on the task of treasurer. This aqueduct is not a registered organization and remains informal. However, in the face of the threat of oil exploitation in the territory, they are studying the possibility of asking for the concession of the use of water, thus adapting to the rules of the recent legislation.

In the second aqueduct 2400 families participate. As this aqueduct was expanding because the area was becoming a city, the

collective character of decision-making decreased. Delegates were elected and a board was formed. This aqueduct is currently registered and has a water concession. The decisions are the responsibility of an elected board that hires employees to work in a paid manner in the maintenance of the aqueduct. Between these two extremes in organizational terms, there are a variety of sizes and dynamics. The close relationship with water sources in the environmental aspect remains common, and also the collective character of decisions in the organizational aspect and the use of technologies appropriate to the territories in the technical aspect – thus avoiding the construction of “white elephants”. In the legal aspect there is the issue of water concession and the compliance or not with the rules in force. Finally, in the financial aspect, most aqueducts have the character of a solidary and fair economy; that is, they are non-profit entities that reinvest in themselves and in communities, aiming at improving water quality and basic sanitation.

“Just as no two drops of water are the same on the planet, since water is a distinct living being in every place where it exists, so are also distinct the self-managed community water organizations” (M.).

The ways of conducting these processes differ in each aqueduct. This is one of the criticisms of government measures: they impose status models for very different organizations and disregard ethnic and cultural diversity and geographical and historical contexts. The intention to unify the functioning of organizations through a business and commercial logic, however, faces resistance from community aqueducts.

It is interesting to reflect on the dynamics of the sexual division of labour and its transformations in the organizational process of community aqueducts. The need for an aqueduct is placed on the community’s agenda by women. Most aqueducts are built by

men and women of the community. Men predominate in physical infrastructure work and women in the community kitchen. This separation of women and men is very marked in the history of community aqueducts. The understanding of what the physical capacity of men and women is, however, is changing: just as women have always walked miles carrying water to their homes, they also have the physical strength to walk across the network of their aqueduct to clean it.

Currently, the leadership and role of women in community aqueducts has become visible. Thus, community self-management contributes to the formation of leadership for women, as it breaks with the place of women closed inside their domestic tasks. She leaves home not to walk miles to fetch water, but to work on the issue of water politically with the community. Thus, she recognizes herself as a collective political subject.

*Community organization in the absence of public policies:
the experience of the communities in Chiquimula, Guatemala⁴*

The reality of long periods without rain is common to different countries in Latin America. In Central America there is a so-called dry corridor made up of regions in Guatemala, Honduras, El Salvador and Nicaragua. It is a reality similar to that of the Brazilian semiarid region: the rains are concentrated over a period of three or four months of the year. Precipitation in the dry corridor is about 800 to 900 mm per year (in the Brazilian semiarid it is about 500 to 600 mm/year).

⁴ Based on an interview with a member of the 8th of March Feminist Centre (CF8) and activist of the World March of Women.

Based on a partnership between the United Nations Food and Agriculture Organization (FAO) and the Brazilian Semi-Arid Articulation (ASA) with the Association of Progressive Women of Guatemala, CF8 participated in an exchange in Guatemala. During the exchange, it was possible to monitor the construction of two social technologies from the Brazilian semiarid in agricultural communities in that country: the 16000 litres rainwater catchment cistern, and the bio-digester – a gas system for the kitchen.⁵ This experience illustrates some challenges for women in the dry corridor region. According to the 8th of March Feminist Centre (CF8), more than one million families in high poverty live off subsistence agriculture, with limited access to basic water, sanitation, health and education services.

In the dry corridor communities in Guatemala there are very few places with tap water. The communities are in a very mountainous region and, along the road, there are taps where mainly women fetch water. Since the houses do not have reservoirs, people use 20-liter gallons (or, at most, 50-liter barrels) to store water at home. That is why every day it is mainly women, youth and children who go out to fetch water from these collective taps. During the dry season, the walks are longer, because with the drought the level of the wells drops, and the water no longer supplies all the taps along the road.

The collected water is for consumption, household chores and planting. A common image is that of women with water buckets on their heads climbing the mountain to irrigate their gardens

⁵ The goal is that the bio-digester replaces the firewood used in all kitchens in the region. As with water, women are responsible for collecting and carrying firewood, in addition to cooking. Therefore, they are the ones who inhale all the smoke from the wood stove. Improvement in health was the main expectation presented by these women.

and crops. In the dry period, it is common for women to work in a collective manner (*mutirão*) together, passing the bucket from one to the other in a row, until the water reaches the cultivation sites. They mainly plant vegetables for self-consumption. Men are seldom present in crops (and in the entire process of obtaining water) because most of them work on agribusiness farms (melon, corn, tobacco) and also as drivers and wage earners in the region.

The lack of access to water and the way the sexual division of labour is manifested in this region are expressions of a model of land and social organization. The scarcity problem is not so much due to the lack of rain, but mainly due to political and economic factors. Effectively, there is a division of land: the flat, fertile and easily accessible areas are destined for agribusiness. The communities have historically been pushed up the mountain, becoming isolated and abandoned by the government. Physical distance prevents direct conflict. On the other hand, there is no lack of water for agribusiness: there are wells and a rich infrastructure.

In fact, the exchange for the construction of the cistern came from civil society organizations in partnership with FAO. Although there has been a timid attempt to raise public awareness, there is no specific public policy to guarantee the right to water. One aspect to be considered in FAO's performance in this experience was the naturalized way sexual division of labour is incorporated. The selection (carried out by FAO) of people trained to construct the cistern were all men. Women (who had participated in most of the discussions held by the Association of Progressive Women) were not chosen in the training work.⁶

6 On a problematization of the sexual division of labour based on women's self-organization in the construction of cisterns, see: MOURA, M.; MOURA, I. & LOPES, 2006.

*Women against water contamination and privatization:
the experience of Nejada, El Salvador*

This case illustrates the active involvement of women against water privatization. This struggle has been accompanied by Cesta, an organization that integrates *Amigos De la Tierra* in El Salvador, and the systematization of this experience is available in Muñoz (2018).

The conflict broke out in 2012, when the company ILC / San Miller, which performs the bottling of Coca-Cola's *Cristal* mineral water brand, applied for a license to expand its operations in the region. The industrial process of producing bottled water involves a series of activities, such as bottle production, bottling and water distribution. It was the women of the region who identified the effects of these activities on the water sources, both by decreasing the levels of the sources, and by identifying the contamination of the water, due to the bad smell. They were also the ones who first felt the effects of the interruption of continuous supply and who took the lead in the articulation of the community and in the confrontation and negotiation with the company.

The water contamination was denounced by them as a direct responsibility of Coca-Cola. The effects of contamination and the poor structure of water storage were directly felt in the health of women. Tanks and gallons often become breeding grounds for mosquitoes that transmit disease, such as the Zika virus.

In the face of shortages, an alternative is the purchase of water trucks, whose access is, in turn, limited by the lack of resources. In addition, the use of water for hygiene and consumption is a priority in contexts of scarcity (Muñoz, 2018), which undermines the cultivation of vegetable gardens for family supply.

All these reasons impelled women to face Coca-Cola's strategy to expand its plant in Nejapa. The concrete knowledge of the company's impacts was fundamental in the struggle of the women who

denied the arguments and figures presented by the company in different spaces. They pointed out, for example, that the company had already opened and used wells before obtaining official permission. They also presented a technical study on the contamination of water and environment – the company’s direct responsibility – such as emission of gases and discharge of untreated liquids. Due to the lack of rights established in Salvadoran legislation and in the absence of norms and regulations on water management, the mobilization had to combine different strategies. A public consultation with more than two thousand people decided against the project; women organized a great march against the company; and a technical study on the aquifer questioned the impact studies presented by the company. Finally, the complaint was taken to the Latin American Water Court⁷. This example of resistance problematizes the logic of the State that prioritizes and facilitates the performance of companies to the detriment of the population’s access to water, in addition to negligence in the control and surveillance of impacts on the environment.

“WATER IS WORTH MORE THAN GOLD”: THE DEFENCE OF WATER AND TERRITORIES AGAINST EXTRACTIVISM – THE EXPERIENCE FROM PERU

The logic of extracting workforce and nature is not new. Historically, the development of mining, despite some subsistence experiences, is associated with colonization and imperialism (SOF, 2014). The strategy of occupation of territories by mining pro-

⁷ Resolution of this Court, accessed 3 Feb 3 2020, <<http://tragua.com/audiencias/ciudad-de-guatemala-2015/resoluciones-audiencia-guatemala-2015/resolucion-caso-nejapa-el-salvador/>>

jects involves the implementation of companies that dismantle the existing economy and redirect it around their presence. The companies dispute resources or destroy and contaminate them. Mining companies cause massive destruction of occupied lands: erosion, deforestation, desertification and silting. Toxic residues from the extraction of some ores such as gold cause pollution of rivers and soils. Air pollution comes from the dust of continuous demolition of the land and transportation of ores.

The resistance of women, peasant communities and indigenous peoples in Peru illustrates the challenges faced. In 2012, the National March for Water⁵ was held in Cajamarca against the advance of mining.

The interview with a member of the World March of Women⁸ in the macro-northern region of Peru contributed to a reflection on the current status of these struggles, particularly in the regions of Cajamarca (Conga Project) and Lambayeque (Cañaris people). According to her, it is necessary to consider that, despite the political crisis in that country, the implementation of extractive projects is advancing. The perverse effects are the construction of mining corridors, the militarization of territories in the southern region of the country and the declaration of a state of emergency in some regions.

We highlight some aspects to broaden the understanding of the recurring dynamics in conflicts.

The first is the centrality of water defence against contamination and damage caused by large mining, while identifying the coordinated strategies of companies from different sectors in the same territory. For example, in the Chancay-Lambayeque river basin, resistance is not only to the mining, but also to the

⁸ See, accessed 3 Feb 3 2020, <http://marchanacionaldelagua2012.blogspot.com/p/porque-la-marcha.html>

extractive activity of oil and agribusiness. All of these companies are distributed throughout the basin: mining is in the upper part, agro-export in the middle and oil in the lower part. Lambayeque is the territory of northern Peru with the highest quote of agribusiness activities, which leads to a fierce dispute over water. The dam that has existed in the region for 50 years is quite full of sediments. Water development plans indicate the construction of dams in all basins, aiming to establish a water market. In addition, there is a process of reconcentration and foreignization of the land.

There is strong popular resistance to the expansion of mining, with emphasis on the Cañaris people. The mining company (Candence Cooper) has long sought to take over the territory of the Cañaris. These are community lands that cannot be sold or rented without an assembly of residents. In turn, the company Telefonica, with the justification of placing an internet antenna in the region, tried to change the statute of the Cañaris people, granting more power to the board of directors and the president, thus allowing the sale of the territory. This same strategy had been carried out in a southern region of the country.

The agribusiness companies work to prevent communities from accessing springs, promoting water channelling projects for agro-exports. Furthermore, there are the REDD projects, marked by secrecy. Peasants and small farmers, turned unable to produce for their own subsistence, are pushed into wage labour in large corporations. Small farmers are being employed as day labourers in agro-export. The situation of these workers is marked by precariousness and the absence of rights.

In the two cases reported, popular resistance managed to paralyze the projects, but companies have acted in different ways to resume their activities. As soon as the new municipal government was elected in Lambayeque, for example, the company sent prosecutors to invalidate the consultation with the community (in 2012) that rejected the presence of mining companies in the territory.

Among the business and militarization strategies is the feeling of insecurity within the community. It is common to hear from women that they cannot trust “neither their neighbours nor their families”. In addition, there is permanent harassment and the money invested by the company “serves to buy consciences in a small community”.

STRATEGIES TO STRENGTHEN AND EXPAND RESISTANCE

The reflections presented dialogue with the interview of the MAB leader. Articulation processes are underway in all the above-mentioned examples. It is possible to find similarities between the impacts produced by the construction of hydroelectric plants and the impacts produced by mining projects and the infrastructure works that accompany them. The movements that organize resistance to the construction of dams, such as MAB, demonstrate that companies, in partnership with the State, consolidated a method of violation of rights. In the case of women, there is a brutal setback in living conditions, both in terms of work, production and relationships, as well as in social areas, such as education and health (SOF, 2014).

Despite so many struggles against the construction of dams across Latin America, the assessment is that there are no consolidated national resistance strategies. The mobilizations are concentrated at the local level in facing each project. In Mexico, for example, for each proposed dam, in each basin, there is a movement, but there are no national processes for articulating and building a common strategy. Based on this assessment, and considering the construction of dams as part of the articulated action of capital in the region, MAB assumed the challenge of boosting the articulation of a Latin American movement of those affected by dams, MAR.

Based on a mapping of territories with resistance to those affected, a training process was defined with the formulation of common

strategies with national bodies for the coordination of struggles. MAR currently has organizations in Bolivia, Brazil, Colombia, Peru, Argentina, El Salvador, Chile, Mexico, Cuba, Venezuela, Paraguay, and Honduras, with expansion plans for Costa Rica, Guatemala, Nicaragua and Ecuador.

The interviewed leader who is participating in this articulation process identifies common points in the performance of women in the struggles of those affected. First, it is women who organize and guarantee the resistance at the base. However, in the leadership bodies or in the national articulations, the presence of women decreases due to family, children and work in particular and due to power and patriarchy relations in general. Being a Latin American articulation, an interesting fact is that women from countries that debate the issue of rights from a gender perspective in a more advanced way question men from more patriarchal countries in their political construction. Learning in this sense has been the challenge of transforming power relations and the sexual division of labour. The experience of *cirandas* – childcare – is part of the construction process that captivates women from other countries who did not have this type of experience. Thus, the assessment is that politicizing the sexual division of labour and individual and collective responsibility for care strengthens and qualifies the intervention of women and the movement as a whole.

In all countries we see that people do not live without water, and therefore do not live without rivers. The meaning of the river involves the peoples' very relationship with the territories and their ancestry, in addition to the reality: indigenous peoples bathe their children and wash utensils in rivers. That is why women are the main victims of dams:

“If we talk about territory, about people affected by dams, we are talking about women, water, energy, violence” (S.).

In Central American countries like Guatemala, for example, referenda are guaranteed for those affected to vote yes or no for mining and dam projects. This slows down processes and, in many cases, paralyzes company projects. Referendums are moments of articulation and struggle. However, in several Latin American countries, legislative changes are taking place, in some cases resulting from coups d'état. These changes take away the few guarantees of the rights of peoples and historic territories to facilitate the implementation of projects.

Both the experience of constructing MAR and constructing the community aqueducts in Colombia point to the articulation of the agendas in full key as an important aspect of the Latin American resistances. In the case of MAR, the resistance of those affected by dams has led to a debate on the energy model with different social actors. This has the potential to spread the struggle based on concrete issues that mainly mobilize women in urban areas with issues such as the energy bill and the price of gas.

In the same sense, the struggles in defence of community water self-management in Colombia are increasingly linked to territorial struggles in defence of water, that is, against extractive projects. Thus, they seek to approximate the view that they are similar processes: the struggle to have water on taps and the struggle to defend water sources from capitalist appropriation. They also articulate the defence of water as a human right with the discussion of the rights of nature, seeking to break the anthropocentric perspective of life.

INTIMIDATION AND HARASSMENT, PERSECUTION AND VIOLENCE AGAINST WOMEN WHO STRUGGLE

It is not possible to address the participation of women in conflicts over water without reflecting on the violence that surrounds these struggles.

One of the strategies of companies when they intend to expand their presence in a territory and find resistance is intimidation, disqualification, violence and persecution within communities. The process of disqualifying women's political activities is widely used. An indigenous leader of the Cañaris people, Peru, faced the company and demanded the government to build channels for drinking water for her people. When an agreement was renewed with the mining company, it was this indigenous leader who, together with other women, set fire to the files. Thus began the conflict with the company which resulted in the mining company's activities being halted. The internal conflict that was established in this community was extremely macho and focused the attack on the figure of this leader. Behind the questions was an alliance between men from the community and the mining company's lawyers, who even appeared in a community meeting.

In the case of El Salvador, there is also the same strategy of intimidation and harassment of the company, in addition to disinformation. Coca-Cola offered more than once money and "favours" in exchange for signatures that attested that the expansion of the company in the region was not harmful to the community.

In Colombia, violence against female (and male) leaders involved in community self-management of water and in the defence of human rights and territories has increased.

The processes of persecution, violence and criminalization of the leaders question gender differences in the mechanisms of intimidation. Although there are no statistical records, for the MAB leader, women are less imprisoned because they are less "visible" in the struggles and are still delegitimized as political subjects. The forms of violence against women in the territories are other than incarceration. "They are imprisoned in their own territory by sexual violence, harassment, by not recognizing the dialogue with them." Intimidation occurs via threats to their families, particularly violence, including sexual violence, against daughters in

contexts of militarization. In view of the increased visibility of the violation of the rights of women leaders, protection initiatives have emerged. However, it is necessary to emphasize the individualist logic of these initiatives that most often separate and isolate cases and defenders. Most women at the head of popular resistance do not act alone: they are part of collective processes. This individualized logic (reinforced and financed by international institutions) has generated conflicts with the very base of women's movements, weakening them. This points to the challenge of strengthening and legitimizing the collective processes of political organization.

The patriarchal dimension of capitalism is manifested in all these processes of intimidation, harassment, persecution and violence. Men and companies do not admit that women are as or more radical than men, nor that they have as much or greater capacity for organization and mobilization. In all cases of violence against women leaders – the assassination of Berta Cáceres is the worst example – there is the common fact that they were fearless women who faced capital. In demonstrations across Latin America, women shout: “they fear us because we don't have fear”.

The struggle for water is the struggle for life. Conflicts over water and territories are expressions of the conflict between capital and life. That is why, throughout Latin America, women put their own bodies in resistance, and often “lose their lives defending life”.

Water cannot be considered a resource serving profit and the market if it affects the basic conditions of existence and survival. This is a perspective to be strengthened, rejecting the terms imposed by the market and expanding the affirmation of community, popular and women's references. In addition, it is necessary to strengthen and expand the experiences of community self-management of water, creating reference to the on-going alternatives to the neoliberal *modus operandi*. In these collective and community experiences, women are more present and have their voice more heard and respected, thus strengthening themselves as political

subjects. These challenges demonstrate the popular resistance to confront the corporate capture of democracy and the States, and, in this sense, can be strengthened in regional processes to confront the power of transnational companies.⁹

BIBLIOGRAPHY

ATALC

Informe: estado del agua en América Latina y el Caribe. Amsterdam: Amigos de la Tierra Internacional, 2016. Accessed 3 February 2020. <https://www.academia.edu/33159204/Informe_Estado_del_Agua_en_Am%C3%A9rica_Latina_y_el_Caribe>.

Política pública y derecho fundamental al agua en América Latina y el Caribe. Amsterdam: Amigos de la Tierra Internacional, 2018. Accessed 3 February 2020. <<http://www.biodiversidadla.org/Recomendamos/Politica-publica-y-derecho-fundamental-al-agua-en-America-Latina-y-el-Caribe>>.

JOSEPH, Rose-Marie

“L’eau et les femmes dans la division du travail: de la corvée à l’esclavage domestique”. In: Marcondes, Lia (org.). *Eau et féminismes*. Petit histoire croisée de la domination des femmes et de la nature. Paris: La Dispute, 2010.

KERGOAT, Danièle

“Relações sociais de sexo e divisão sexual do trabalho”. In: Lopes, Marta Julia; Meyer, Dagmar & Waldow, Vera (orgs.). *Gênero e saúde*. Porto Alegre: Artes Médicas, 1996.

⁹ Such as the global Campaign to “dismantle corporate power and end impunity” and the Continental Journey for democracy and against neoliberalism.

MOURA, Maria da C. Dantas de; MOURA, Isolda Dantas de & LOPES, Cláudia *Construindo cisternas, desconstruindo tabus: mulheres capacitando mulheres para o acesso a água*. Mossoró: cf8, 2006 Accessed 3 February 2020 <http://www.bibliotecadigital.abong.org.br/bitstream/handle/11465/464/CF8_construindo_cisternas_desconstruindo_tabus.pdf?sequence=1>

MUÑOZ, Marta Eugenia

“El Salvador: las mujeres defienden el agua y enfrentan a Coca Cola en el municipio de Nejapa. In: Vazquez, Ana Maria (org.). *Mujeres defendiendo la vida y los bienes naturales: casos de América Central*. San Salvador: Cesta, 2018.

SOF

Trabalho, corpo e vida das mulheres: uma leitura feminista sobre as dinâmicas do capital nos territórios. São Paulo: Sempre Viva Organização Feminista, 2014. Accessed 5 February 2020, <http://sof2.tempsite.ws/wp-content/uploads/2015/04/Cartilha_mercantilizacao.pdf>.

THE UNSUSTAINABLE WATER USE BY BAUXITE MINING IN ORIXIMINÁ (PA)¹

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PRESENTATION

In this study, we will highlight the restrictions of the right to water experienced by the *quilombolas*³ of Boa Vista and by the *ribeirinhos*⁴ of Boa Nova and Saracá⁵, as a result of 40 years of activities of the largest bauxite producer in Brazil, in the municipality of Oriximiná, in the Brazilian Amazon.

1 This text was prepared in 2018 from testimonies collected in the *quilombola* community Boa Vista (August 2017) and in the *ribeirinho* communities Boa Nova and Saracá (April 2018). The publication of the statements was duly authorized by the interviewees.

2 The São Paulo Pro-Indian Commission (Comissão Pró-Índio de São Paulo, CPI-SP) – partner organization of Christian Aid in Brazil.

3 Translator's note: *quilombolas* are descendants from black enslaved people who, in colonial times, fled from slavery seeking shelter in isolated regions and remained there even after abolition while maintaining their own identity and culture.

4 Translator's note: *ribeirinhos* are a traditional population who lives near rivers (*rios, ribeiros*).

5 *Quilombolas* and *ribeirinhos* are among the local groups classified in Brazil as “traditional peoples and communities”: culturally differentiated groups that have their own forms of social organization and that occupy and use territories and natural resources as a condition for their cultural, social and economic reproduction.

The municipality of Oriximiná, whose size exceeds Portugal, has an extensive area of preserved forest that guarantees the survival of *quilombola*, *ribeirinho* and indigenous communities. In 2017, the deforested area accounted for only 1.44% of the municipality (Source: Inpe / Prodes). In the subsoil of this forest, however, lies the largest reserve of bauxite ore in Brazil – the third largest reserve on the planet – which has been exploited by Mineração Rio do Norte (MRN) since 1979 with significant socio-environmental impacts.

The company settled in the region in the 1970s – i.e. during the period of military dictatorship –, at a time when the debate and awareness about the environmental issue were in the initial stage in Brazil, especially in the context of the mineral industry. Only in the 1980s the National Environmental Policy and the environmental licensing system was established in Brazil. From that period on, MRN began to submit its projects of expansion of the extraction area to the processes of environmental licensing.

The MRN has as shareholders large mining companies: Vale (40% of the shares), South32 (14.8%), Rio Tinto (12%), Companhia Brasileira de Alumínio (10%), Alcoa Alumínio S.A. (8.58%), Alcoa World Alumina (5%), Hydro (5%), and Alcoa Awa Brasil Participações (4.62%). Bauxite, the raw material used in the production of aluminium, is marketed by MRN in the national and international markets (Asia, Europe and North America) (MRN, 2018). In 2017, MRN produced 16.280 million tons of bauxite. In 2016 were generated 18.202 million tons which resulted in net revenues of 1.35 billion reais.

The operations of Mineração Rio do Norte consist of ore extraction, processing, rail transportation, drying and naval shipment. The company's structure includes an industrial park for the processing of bauxite, 25 tailings dams, 28 km of railroad tracks, access roads, conveyor belts, port for shipment, two thermoelectric power plants, an airport, and the company-town Porto Trombetas where are living about 6,500 people (MRN, 2016). The mining of the ore takes place inside the Saracá-Taquera National Forest, a federal

conservation unit, where the beneficiation plant and 23 of the tailing dams are also installed.

The *ribeirinho* communities Boa Nova and Saracá together comprise 77 families living in the Sapucaá-Trombetas Agroextractivist Settlement Project and also occupy areas of the Saracá-Taquera National Forest. Since 1979, and with intensification since the 2000, mineral exploration has been advancing on important sites for their subsistence, such as areas of forests used for the harvesting of the Brazil nut, which had to be cleared for ore withdrawal between 2002 and 2010 (WANDERLEY, 2008).

In turn, the *quilombola* community⁶ Boa Vista, today with 155 families, lives in the *Quilombola* Territory (QT) Boa Vista⁵ situated on the banks of the Rio [river] Trombetas, limiting to the east with Porto Trombetas, the MRN company-town. The construction of the industrial village, still in the early 1970s, in the neighbourhood of the community was one of the first impacts felt by the *quilombolas*.

According to the memories of *quilombola* Marina dos Santos, 68 years old, the construction of the mining village took place on areas occupied by the *quilombolas*:

“When the mining came here, all this was fields, manioc fields. They destroyed everything. Over there, where they live,

⁶ *Quilombo* is the name for communities made up of black slaves who resisted the slave regime that prevailed in Brazil for more than 300 years and was only abolished in 1888. *Quilombos* were constituted from a great diversity of processes that included the escape of slaves to free and generally isolated land. But freedom was also won through inheritances, donations, land receipts as payment for services rendered to the State and by staying on the lands they occupied and cultivated in the far regions of large properties. There are also cases of land purchase both during the lifetime of the slave system and after its abolition. What characterized the *quilombo* were the resistance and the conquering of autonomy. The formation of *quilombos* represented the transition from the condition of slave to the condition of a free peasant.

we were going to get some sieved manioc to make manioc flour, you know? Over there, where the mining is, it was called *conceição*, that area over there" (Marina dos Santos).

José dos Santos, her neighbour, completes: "this front of the mining over there, this is all landfill. This area, when it was normal, this was all water", referring to brooks of communal use that were filled in to make way for Porto Trombetas.

Quilombolas and *ribeirinhos* have developed a way of life based on agriculture, extractivism and fishing, activities that depend on a deep knowledge of local ecosystems: of the land, the rivers and the forest. However, with the implementation of MRN, the region where these communities live underwent profound socioeconomic and environmental changes since the 1970. Water pollution and other forms of degradation of watercourses by the company are among the main impacts on the life of the *ribeirinho* and *quilombola* population, as will be discussed below.

RIVERS & STREAMS: WATER SOURCES FOR *RIBEIRINHOS* AND *QUILOMBOLAS*

Access to water in the *ribeirinho* and *quilombola* communities in Oriximiná depends mainly on its capture or direct use in rivers, streams (*igarapés*) and lakes to meet the most varied daily needs, such as human consumption, personal hygiene and the development of domestic activities (for example, washing clothes and dishes). These watercourses are also used for fishing and are the main means of locomotion in an Amazon region that practically does not have roads.

Water in women's everyday life

The direct use of the waters, under the open sky, of the Rio Trombetas and the streams in *Quilombo* Boa Vista and in the Boa Nova and Saracá communities is part of the daily routine of many women and youngsters who are assigned the majority of household tasks. Access to these watercourses is usually done more than once a day, beginning in the morning, for activities such as washing dishes and clothes, which are commonly used to take bath and bathe the children who often accompany these moments.

These activities are developed in small and numerous “bridges”, tiny structures of wood installed at the water’s edge. The bridges are as close as possible to the dwelling places, functioning as an “extension” of the houses.

The relationship of children and young people with water

Assiduous companions of their mothers during domestic work, the *ribeirinho* and *quilombola* youths and children appropriate the watercourses in their own ways. From an early age, they are encouraged to learn the necessary skills to live with the river: in their early years they learn to swim, and over time they master the techniques of paddling and fishing.

Besides being a learning place, children and youths have spaces of sociability and leisure in the Rio Trombetas and the streams where they interact and play with neighbours of the same age. Water games are a very common practice, such as the “catch me” and the “playful jumping” from the trees into the river and involve children for hours. In groups, boys and girls use to “go down” to the river before going to school, and frequently, according to the mothers, they only leave after warnings not to be late.

Drinking water

The direct water capture in the Rio Trombetas and the streams for human consumption (ingestion) is quite recurrent and, until a recent past, it is common to hear among the elders that this was the only environment where drinking water was collected:

“Because, before, we did not need a microsystem⁷. Because the water from here [from the streams], we used it for everything, to drink, to wash clothes, for everything” (Maria de Fátima Viana Lopes, community coordinator of Boa Nova).

Today, the impacts on the water quality, attributed by the local population to the mining, raise fears about the continuity of this practice. As Zuleide dos Santos, a resident of Boa Vista, ponders, “Today, I’m afraid, it’s polluted. This is not a foolish idea; it’s the bauxite that pollutes the water”.

There are microsystems installed in the communities by Mineração Rio do Norte and the municipality of Oriximiná, but they do not guarantee the potable water supply of all houses. In the community of Boa Vista, for example, it is estimated that at least one third of the families is not being served by the network. Also in the Boa Nova and Saracá communities, frequent network problems are reported. Even the potability of the water coming from the microsystems is questioned by the *ribeirinhos*.

⁷ Microsystem is a water distribution network from artesian wells built by MRN, in agreement with the City Hall of Oriximiná, meeting the requirement of the federal government as a condition for the environmental licensing of the enterprise.

Fishing and food sovereignty

For the Boa Vista, Boa Nova and Saracá communities, fishing is an important activity. The transit of canoes and other small boats conducted by fisherpersons circulating on the Rio Trombetas and the streams is constant. It should be noted that in a region with predominance of low-income families, fishing is at one time an important source of subsistence – becoming synonymous with food security – and at another an economic alternative through the commercialization of fish.

MINING IMPACTS ON THE WATERS

Quilombolas of Boa Vista evaluate that the quality of the main watercourses they use – the Igarapé Água Fria and the Rio Trombetas – is compromised by the mining activities. The Igarapé Água Fria receives water from two sediment containment dams that absorb the drainage of several MRN structures located on the banks of the Rio Trombetas. The function of these dams is to guarantee the maintenance of the quality of the final effluent that is drained in the watercourses. However, the *quilombolas* affirm that the characteristics of the Igarapé Água Fria changed profoundly after the installation of the dams, showing differences, for example, in the temperature and turbidity of the water (ANDRADE, 2018).

The Rio Trombetas, for its part, receives the impacts of the huge ships that transport bauxite to the consumer market. At the port terminal of MRN, an annual average of 315 ships (MRN, 2016, p. 29) is loaded. The port is located about 1,5 kilometres from the limits of QT Boa Vista and, according to the *quilombolas*, the return manoeuvres of the ships occur in the section of the Rio Trombetas in front of the community. In the view of the Boa Vista residents,

environmental disturbances due to the constant flow of ships caused a drastic reduction of fish.

Located to the south of the enterprise, the *ribeirinho* communities of Boa Nova and Saracá observe that the streams they use – Igarapés Saracá, Saracazinho and Araticum – show changes in the colour, turbidity and potability of the waters, changes in their beds and lowering of fluviometric levels. These streams drain the region where MRN extracts and benefits bauxite (ANDRADE, 2018). “This pollution does not harm only human beings, but all living water beings” (Euclides, Saracá community).

Ribeirinhos evaluate that the watercourses have been impacted by erosive processes due to the mining activity, the construction of company roads and also the capture of water for use in the industrial plant located on the Saracá plateau (where MRN performs the crushing, sieving and washing of the bauxite extracted in all the plateaus). In the perception of the *ribeirinhos*, the mining activity – which requires the total deforestation and the excavation of the soil for about eight meters – would be responsible for the movement of soil into the streams, carrying particles to the water and causing its pollution.

In addition to the pollution, the residents notice a decrease in the water volume of the streams they use. According to Domingos Rabelo, from the community of Boa Nova, this is a consequence of the soil excavation to remove the ore from the plateaus (from the *serras*):

“Some springs have been reducing their water, and why? They took away the sierras. This is one of the strong impacts we have. Because all the streams [igarapés], where do they have their springs? Underneath, the spring is under a sierra. And they took everything. Then, of course, it [the igarapé] will reduce the volume of water. And so, there is a lack of water for us over here” (Domingos Rabelo, Boa Nova community).



Multiple uses of the river by the *quilombola* community in Oriximiná (PA)

Photo by Christian Aid/Tabitha Ross.

RESTRICTIONS ON THE RIGHT TO WATER

Restriction of access to drinking water

Access to quality water for human consumption (ingestion) is a concern present in the daily lives of *ribeirinhos* and *quilombolas*. With the progressive compromise of water quality and the precariousness of the supply microsystems installed by the mining company in the communities, this population faces difficulties to guarantee access to drinking water.

In Quilombo Boa Vista, women – who are mainly responsible for obtaining drinking water for the family – must resort to a kind of “water tap” located in Porto Trombetas, the village of MRN that is about 1,5 km distant from the community. Women must travel by river from the community to the village, collecting, packing and transporting the water from the village to their homes, an activity that demands extra time and energy, an extra burden many women complain about:

“There are many women here, from here, who go out to work, leaving their children behind, and when they come home, they have to go out again to carry water. When there are many persons and little vessels, every other day, you have to go and fetch water” (Valda Lúcia Santos de Jesus of Quilombo Boa Vista).

Given the precarious supply systems, in the communities of Boa Nova and Saracá, which have no urban centre in their vicinity, people have no choice but to capture water directly from the watercourses. As the *ribeirinhos* explain, when they spend days with productive activities away from home or on canoe trips and during fishing, drinking water has always to be obtained

from the streams which, according to them, do not present the quality of before.

Impacts on health

One of the main concerns of *ribeirinhos* and *quilombolas* are the health impacts caused by polluted water. It is common among residents to believe that the implementation of the enterprise “brought” new diseases to the communities:

“We do not feel safe in relation to health because of the pollution of the water, you know? Nobody feels really safe”
(Jones da Luz, de Boa Nova).

There is a special concern with women and children, as they are immersed in water for long periods, during their daily activities, and thus more exposed to the risks associated with water pollution. Women complain with recurrence of skin problems, such as itching, allergies, blisters and “rashes”:

“When I take a bath here, I feel that tingling, that itchiness on my skin. So, I believe it’s also because of this water”
(Valda Lúcia Santos de Jesus).

As the adults explain, the children’s contact with the waters which they consider polluted by mining fills them with concern, especially for health reasons:

“We have times here that there is a lot of itching in everybody, there is a lot of diarrhoea in children. We think that it is from the water” (José dos Santos, Boa Vista community).

“The children also bathe in the water there. We adults take care, but you know, children, you can never go away from them, they really like being there [in the water]” (Ilson Gemaque dos Santos, Saracá community).

As for the health effects when water is ingested, *ribeirinhos* and *quilombolas* reported being affected by problems such as diarrhoea, vomiting, stomach pain, intestinal and urinary infections and gastritis.

“Look, for example, diarrhoea, we see that most families, whether they be in Boa Nova or Saracá, complain a lot, right? About diarrhoea through the water. So, we see that the families, most of them, complain a lot about diarrhoea, through polluted water. But not just diarrhoea” (Jones da Luz, a resident of the Boa Nova community).

Impacts on fishing

The impacts of bauxite mining, according to the perception of *quilombolas* and *ribeirinhos*, are not restricted to water pollution, but also compromise the fishing activity which is so important for their food sovereignty.

In the Boa Vista *quilombola* community, the perception that the availability of fish decreased after the installation of the project also raises concern for the conservation of watercourses and aquatic life. One of the reasons pointed out by the *quilombolas* would be the pollution of the Igarapé Água Fria, caused by the dams of the Mineração Rio do Norte, mentioned previously. As Marina dos Santos, 68, recalls, when her parents were still alive, the situation was different: “In this Igarapé Água Fria, my father was fishing. Today there is nothing left, nothing at all”.

Another factor that would “scare away” the fishes, according to the *quilombola* perception, would be the disturbances caused by ships, which provoke noise, displacement of water and turbulences in the underwater environment. As *quilombola* Valério dos Santos explains, the ships “revolt” the water, and the fishes flee. What the knowledge of the *quilombolas* tells us receives a sophisticated technical term which refers to a specific type of pollution that has an impact on aquatic fauna: underwater sound pollution, whose effects on fish due to the ship transit of MRN apparently have not yet been measured in the Rio Trombetas.

The residents of Boa Nova and Saracá also report the decrease in fish and observe that fishes do not “want” to live any more in impacted aquatic environments. From a rich ethno-ecological knowledge, the *ribeirinhos* explain that the relation between the impacts of the mining and the decrease in fish has to do with the degradation of the habitats of these animals. This situation threatens the food sovereignty of those who depend on fishing for food: “We have had a lot of damage in relation to our food. Fish stayed away.

I myself, when I got here, I went out any moment and I picked up what to eat in the canals. Not now, now you try all night, and nothing” (Domingos Rabelo, from Boa Nova).

IN THE DEFENCE OF THE RIGHT TO WATER

The problems experienced by the residents of Boa Vista, Boa Nova and Saracá have not yet been adequately investigated by MRN or the case control bodies responsible for the environmental control. The water monitoring is carried out by the company itself and meets the requirements established by the government in environmental licensing. Mineração Rio do Norte claims that their water monitoring does not indicate problems in water quality.

However, there is no independent monitoring, a fact that worries José dos Santos, from Boa Vista:

“I cannot prove anything, because we do not have a laboratory to make a prove ourselves, but there is a time here when people suffer from a lot of itching, a lot of diarrhoea in children. We figure that it comes from the water. Now there is no direct condemnation because the laboratory belongs to the company, and it will not condemn them for us”.

The dissemination of the results of the monitoring carried out by MRN is very restricted, as indicated by José Pontes Monteiro, from the Saracá community: “There is a water collection here. Every month there is a collection of water, this is already going on for a long time. But where is the result of this water, so we know what the matter is and what not?”

There is no communication policy by the company or by the environmental agency that assures the local population access to the results of water monitoring in an accessible language. There is also no channel of dialogue that allows the discussion of the implications of such results for the communities that use these water resources.

Since 2016, the Pro-Indio Commission of São Paulo has been working in partnership with *quilombolas* and *ribeirinhos* to register and denounce problems related to water and to demand government and company measures. However, in Oriximiná, there remains the challenge to establish channels of dialogue and a shared decision that allows real listening on the part of the government and the company to the questions posed by the impacted communities, and the joint construction of effective and lasting solutions to assure their right to the water and to the ecologically balanced environment.

See below the list of government bodies with responsibilities in the present case:

- Ibama – responsible for environmental licensing and monitoring.
- Agência Nacional de Mineração (National Mining Agency) – responsible for the supervision and safety of mining dams.
- ICMBio – responsible for the management of the Saracá-Taquera National Forest.
- Fundação Cultural Palmares (Palmares Cultural Foundation) – responsible for the *quilombola* component within the environmental licensing.

BIBLIOGRAPHY

ANDRADE, Lucia Mendonça Mourato de

Antes a água era cristalina, pura e sadia: percepções quilombolas e ribeirinhas dos impactos e riscos da mineração em Oriximiná, Pará. São Paulo: Comissão Pró-Índio de São Paulo, 2018.

“Quilombolas em Oriximiná: desafios da propriedade coletiva”. In: GRUPIONI, D. F.; Andrade, L. M. M. (org.). *Entre águas bravas e mansas: índios & quilombolas em Oriximiná.* São Paulo: Comissão Pró-Índio de São Paulo/Iepé, 2015. pp. 62-83.

COMISSÃO PRÓ-ÍNDIO DE SÃO PAULO

Quilombolas em Oriximiná. Accessed 5 February 2020 <<http://cpisp.org.br/quilombolas-em-oriximina/>>

MINERAÇÃO RIO DO NORTE

Relatório de administração 2017. Apresentado aos seus acionistas. Pará, 23 maio 2018, 19 p. Accessed 5 February 2020 <http://www.mrn.com.br/paginas/images/Informaes_Financeiras/Balan%C3%A7o_DOE_2017_Final_23_04_18.pdf>.

Relatório anual de sustentabilidade gri 2015. Porto Trombetas, 2016,

60 p. Accessed 5 February 2020 <http://www.mrn.com.br/paginas/images/GRI_MRN_2015_final.pdf>.

Environment report. Mina Almeidas: extraindo bauxita e preservando o meio ambiente. Porto Trombetas, jun. 2002. Accessed 5 February 2020 <http://www.mrn.com.br/paginas/Relatorios/environment_o6_almeidas_juno2.pdf>.

WANDERLEY, L. J. M.

Conflitos e movimentos sociais populares em área de mineração na Amazônia. Rio de Janeiro, Instituto de Geociências, Departamento de Geografia, Universidade Federal do Rio de Janeiro, 2008. (Master's thesis).

ACCESS TO QUALITY WATER IN JACI-PARANÁ AND CAVALCANTE (RO)

Movimento dos(as) Atingidos(as) por Barragens (MAB)¹

BACKGROUND

In 2015, 29% of the world population, that is, 2.1 billion people, did not use a safe drinking water service (which would be close to the residence, would be available and would be not contaminated). Only 1/3 of the portion of the population who had safe access to water lives in the countryside. 844 million people still have no basic access to drinking water. 159 million still use water collected from the surface, as in lakes and rivers. In the case of sanitation, the situation is even more critical: 4.4 billion people worldwide (61%) do not have access to basic sanitation services. 892 million people worldwide still deposit solid waste in the open air (WHO; Unicef, 2017).

The data presented by the World Health Organization and the United Nations Children's Fund in the first *Monitoring Report on the Sustainable Development Goals in 2017*, according to an analysis carried out by the Pan American Health Organization (PAHO), concludes that the majority of people without access to water are

¹ The Movement of People Affected by Dams (Movimento dos/das Atingidos/as por Barragens, MAB) is a partner organization of Christian Aid in Brazil. The case study published here was presented at the Seminar "Water as a Common Good" in March 2018 in Brasília.

mainly in rural areas. Although the number of people with access to water and sanitation has increased since 2000, they are not necessarily safe, resulting in the deaths of thousands of children each year (PAHO BRAZIL & WHO BRAZIL, 2017).

In Brazil, according to the organization Trata Brasil, 83.5% of the Brazilian population has a treated water supply. However, the percentage in the North of the country is the lowest of the five regions: only 57.49% is supplied with treated water. 52.36% of the Brazilian population has access to sewage collection, but in the Northern region, only 10.24%. Of these, only 22.58% is treated, a very low index compared to the 46% national average. In the State of Rondônia, the water distribution network reaches only 47.67% of the population, sewage collection 4.05%, and its treatment only 7.97%. Porto Velho (State capital) has one of the lowest water supply coverage in Brazil: only 32.7% of the population has access to treated water, and 1.5% has access to the sewage network (INSTITUTO TRATA BRASIL, 2019).

When observing all these data and the local reality, what we notice is that areas with less infrastructure, such as districts, peripheral neighbourhoods and rural areas present even greater difficulties and challenges. Even in regions with an abundance of water, such as the Brazilian Amazon. In other words, it is not a question of resource or scarcity, but of inequality in access.

The district of Jaci-Paraná, located 87 km from the municipality of Porto Velho, which received this name in 1910, still has no water and sewage treatment network. This district had an alarming population growth, as one result of the installation of the Jirau Hydroelectric Plant (HPP) on the Madeira River. At the height of the construction the population went from 2,826 in 2000 to 13,131 inhabitants in 2010. With the population growth and the failure to monitor the structuring of the district, the population is subjected to live in precarious conditions regarding their structures of access to the available water resources.

The water used in the region is almost entirely underground and collected through wells. The system of drains for rejecting untreated sewers, which are built without any technical guidance, is close to the water collection wells, compromising water quality and the health of the local population. In addition to these factors, Jaci-Paraná is considered an area of direct influence (ADI) of the Santo Antônio Hydroelectric Plant (HPP), also on the Madeira River, due to its reservoir, among other impacts such as the increase in the water table in the region, which it may facilitate the penetration of contaminants in the waters by domestic waste and sewage.

Due to the damming by the Santo Antônio HPP, the level of the Jaci-Paraná River, a tributary of the Madeira River, increased considerably in the period from December 2011 to March 2012, and from December 2013 to April 2014, with the highest flood ever recorded in the region. The flooding raised the water table and favoured the infiltration of contaminants in groundwater. In this context, the creeks and the numerous poorly constructed septic tanks leaked and contaminated the underground water network and the soil, compromising the quality of the water consumed *in natura* by the population. At the time, several regional news reports reported the critical situation in which the residents of Jaci-Paraná were living (LAUTHARITE, 2013).

Therefore, an assessment of the current situation is important, as well as of the population's engagement in access to water in Jaci-Paraná and of other communities and districts in Porto Velho. These are fundamental factors to support the permanent dialogue with the institutions in search of solutions to the issue in the districts affected by the large hydroelectric works.

The increase in the migratory flow to the region during the construction phase of the hydroelectric projects caused an in-

crease in demand and pressure on the existing public services.² This resulted in a decrease in the quality of services provided to the resident population, according to a report of the Public Ministry of the State of Rondônia (2006). Among the mitigating measures proposed in the Environmental Impact Study (EIS) of the two projects – Santo Antônio and Jirau – for the district of Jaci-Paraná is the establishment of partnerships with the government for the implementation of water supply, sewage, collection and garbage, in addition to providing training spaces in environmental education in schools and surrounding communities ((MINISTÉRIO PÚBLICO DO ESTADO DE RONDÔNIA, 2006).

The implantation of a unit of the Water and Sewage Company of Rondônia (Caerd) for the treatment of water and sewage in the district, built with resources from the Social Compensation of the HPP Santo Antônio, is under testing. However, the structures implemented so far are deficient. Basic sanitation improvements are in a small part of the district, failing to serve the majority of residents. The health situation in which countless Amazon cities are found is due not only to the lack of improvements in infrastructure, but also to a lack of ecological awareness among human beings. To this end, it is urgent to have an efficient public management with the resource of compensating the hydroelectric, effective and transparent with the population and a quality environmental education not only in schools, but for all residents of the community to participate in the construction of solutions to the problem access, treatment, distribution and disposal of effluents and waste produced by the community.

² Displacement of a large amount of workforce that acts as a catalyst in migratory processes, in view of the constant search for work and income of the working masses, which will weigh in the demands for essential public services, such as: health, sanitation, education, etc. (CABRAL, p. 28 *apud* ASSUNÇÃO, 2011, p. 23).

The Cavalcante community, located on the right bank of the Madeira River approximately 90 km downstream from Porto Velho, is made up of descendants of rubber workers and immigrants from different Brazilian regions. They identify themselves as riverside dwellers (*ribeirinhos*), fishermen and farmers, a result of the process of occupation of the Amazon. This community was formed as a result of the destruction of other communities such as Terra Caída, Ilha de Curicacas and São Carlos after the flood of the Madeira River in 2014. After having their houses and plantations destroyed by the river, the families occupied a piece of land in the hope of a solution coming from the government. Currently, approximately 70 families live in the community without a road, health centre, school, treated water or electricity. Almost five years after the flood, the families never have had access to any compensation or reparation from the government or the companies that control the hydroelectric plants. As the waiting for the solution of the structural problems of the community extended, the population organized itself to pressure for its rights, be it the indemnification for losses and impacts of the flood, be it for the action of the public power in the structuring of the new community.

In Cavalcante, families use water from the Madeira River for domestic use. Families with financial means buy mineral water. Those without means use the river water without undergoing any treatment and without any health security. According to the Community Health Agents in the region, a good part of the diseases within the community can originate from poor water quality, such as dysentery.³ There is a great expectation from the entire

³ For more information on waterborne diseases see: Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância em Saúde Ambiental e Saúde do Trabalhador. *Análise de indicadores relacionados à água para consumo humano e doenças de veiculação hídrica no Brasil, ano 2013, utilizando*

community of Cavalcante that an urbanization project, with construction of artesian wells and water distribution in the homes, will be presented. The community has approximately 1.5 km², which makes it feasible to develop a system for capturing, treating and distributing water, as well as a system of ecological pits.

RESULTS OF THE ANALYSIS OF THE COLLECTED DATA

To better analyse the problem of access to water in Jaci-Paraná and Cavalcante, a qualitative approach was chosen with the use of a questionnaire as a technique for obtaining information. Thirty questionnaires were applied between 24 October and 16 November 2018 in the communities of Jaci-Paraná and Cavalcante. The issue of access to quality water in Porto Velho, especially in the district of Jaci-Paraná and in the community of Cavalcante, goes beyond the access. It is strictly linked to the existence of the very people and those communities. Historically and culturally, these people have always had access to water from rivers, streams, creeks and Amazonian-type wells⁴ without the addition of chemical substances. The majority of the population perceived the water as clean, and its collection and disposal happened in a simple way. This did not cause any damage or damage to the health of the population, since nature took charge of eliminating a significant part of the contaminating agents from human activities. What in this case

a metodologia da matriz de indicadores da Organização Mundial da Saúde. Brasília: Ministério da Saúde, 2015. Accessed 5 February 2020 <http://bvsms.saude.gov.br/bvs/publicacoes/analise_indicadores_agua_consumo_humano_doencas_hidrica_brasil_2013.pdf>.

4 Semi-artesian well (or non-gushing tubular well): it needs pumping mechanisms to bring water to the surface.

would be solved with collection, treatment and distribution infrastructure, however, with the aggravation caused by dams in the region, an infrastructure and new technologies that are capable of meeting the demand of the communities are necessary.

In the Amazon region, there are two periods, called winter and summer. The summer is marked by a lot of sun and little rain, and the rivers, streams and creeks have low water levels. Consequently, the water table follows this dynamic. This period is marked by little water on the surface due to the heat and dryness of the soil. Any exposed liquid quickly evaporates, save hydrocarbons and other greases. In this period, the water table level is between nine and fifteen meters from the surface. In the winter period, in turn, marked by abundant water and rain, the soil is very permeable, and the water tables are close to the surface and can reach two meters. However, during heavy rains occur floods (*enxurradas*). These floods carry everything on the surface, taking the contaminant to the riverbed, which in turn is current and contaminates the water and soil. With the damming of the Jaci-Paraná River by the Madeira River, all water that once flowed freely came to flood the entire territory and, without the floods, everything that is discarded came to contaminate the soil.

As the water table is very close to the surface, it ends up being contaminated as well. According to the report of the older residents of Jaci-Paraná, this type of contamination did not occur before, namely, for two reasons: 1. The floods carried them to the riverbed and their current carried everything that could contaminate; 2. In a normal situation, these contaminants in the soil would have to cross a distance between nine and fifteen meters with vegetables and soil that act as a kind of filter to reach the waters of the water table. That is, when they reached the water table, they no longer carried contaminating agents. With the change in behaviour – the rise in the level of the river and the water table – all and any material discarded on the surface reaches the groundwater very quickly.

Since the water table is a few meters from the surface, between one and three meters, it is a considerable distance.

Considering the complexity of the water problem in the municipality of Porto Velho, which is surrounded by water, it is “contradictory” to say that the people do not have access to water. Although water is abundant, quality is a major concern.

“There are days when this water arrives at the tap with a layer of fat. It seems that they threw lard and you can’t even use it to bathe” (Estela Lago, resident of the Parque dos Buritis resettlement in Jaci-Paraná).

“Look at this river that passes in front of our house, how much water, but what guarantee do we have to drink, to bathe, as we did before having these dams up there, and not getting sick. My children have contact with this water, because they cross it every day to go to school and they are showing spots on their skin and face. I do not have sure, but I think it’s because of that water” (Miracy, farmer of the Cavalcante community).

The dynamics of the Amazon region allows the locals, the “*caboclos ribeirinhos*” or “*beiradeiros*” as they like to be called, to organize themselves according to the flood and drought cycles. However,

“when this river was normal and the rains came, it dragged everything, and today all rain is trapped without flowing into the river. Things are going contaminating everything even the wells that have a bad smell” (Anderson Silva, resident of the Jaçanã neighbourhood in Jaci-Paraná).

Historically, the communities have been organized according to the achievements of collective structures and the implemented

public policies. However, with the problems caused by the construction and operation of the dams, the population was forced to rebuild their lives starting at zero. Even with all their experience, rebuilding life is not easy, especially at an advanced age as is the case with many affected people who are unable to achieve the same quality of life.

“My property earned an average of 9 thousand Reais for my family per month, we had a comfortable home where I could receive friends and relatives, and today we don’t even know where to build the house. When we want to watch a TV program we have to spend on a generator, and all water for drinking and cooking we have to buy. I am 67 years old, and I don’t know if I will recover everything I lost, even though I am fighting for that” (Demir, resident of Cavalcante).

As time goes by, people note a growing lack of interest from companies responsible for hydroelectric projects to resolve the issue of access to clean water and sanitation. This has resulted in the weakening of both institutional and popular pressures, and little by little the local population and the government are losing the will to fight, given the disrepute of a solution. In this way, it is becoming natural for these people that they are “doomed” to live that way.



Hydroelectric plant near Jaci-Paraná (RO) district
Photos by Christian Aid/Richard Reddie.



CONCLUSION

The Amazon region is a territory rich in water, as is Porto Velho. Strange as it may seem, there is a huge lack of water available for consumption. The rivers in the region are mostly sedimentary, that is, still in formation and with a huge load of material in suspension all year. This makes it difficult for communities to use water *in natura*. Another factor is the lack of waste management, be it from human or industrial activities. Which compromise water quality. Considering the two communities analysed, even if the problem faced is access to water and sewage, the search for solutions is differentiated. On the one hand, the Cavalcante community points out as a possible solution an artesian well with a pump powered by photovoltaic energy and a complex of water tanks at a height sufficient for the water to be distributed to the houses by the force of gravity. Whereas, for the residents of the district of Jaci-Paraná, the solution would be more complex, because in addition to contamination in the water body and the lack of treatment and sanitation, a reliable multidisciplinary technical team, chosen by the families, to monitor their needs is lacking. The vulnerability of the Jaci-Paraná community is noticeable.

Public authorities have difficulties in mobilizing human and financial resources to resolve these issues. The measures so far applied were only palliative, and therefore did not address the main structural demands. Experience in the region shows that the trend is that, as time goes by, public authorities and companies will distance themselves from the problem, a fact which requires constant organization and mobilization of the communities' families to put pressure on the responsible actors.

The rupture the of harmony that the local population had with nature was not considered in the assessments of the enterprises. In other words, the guiding thread of the balance between man and the environment will only be re-established with a regional

restructuring plan with effective participation by the local community, from the elaboration to its implantation, with technologies designed and developed by the families that are experiencing the problem. Any action other than this will only be a palliative measure like those that have been taken so far. In this context, the work of the Movement of People Affected by Dams (Movimento dos/das Atingidos/as por Barragens, MAB) is fundamental. These populations that have been and continue to be affected by the effects of the dams on the Madeira River, considering all the social and environmental impact that this involves, are still seeking recognition and respect for their rights.

The MAB was born as a national social movement in 1991, and since then it has organized families affected by dams in 19 Brazilian states. The movement's main banner of struggle is the recognition of the rights of those threatened and affected by dams, especially the right to a compensation which is fair and in accordance with the wishes of the families who are the legitimate protagonists in the reconstruction of their lives. More broadly, the movement debates the mercantilization of water and energy in Brazil, a development model that does not prioritize improving the living conditions of Brazilians and the local development, but rather the profit of large companies.

In the communities studied here, MAB acts in the organization of these families so that they may have access to secure information about their rights and can mobilize themselves to have their demands met. For years, the movement and the communities have demanded action from the Santo Antônio Energia, company responsible for the Santo Antônio HPP, to guarantee the water supply and maintenance of the pits until a definitive solution is reached between the State, the local population and the company. To advance in the pressure on the company, MAB strongly focused on the creation of a Monitoring Group, with the Federal Public Ministry, the Rondônia Public Ministry and the Federal Public Defender's

Office, in addition to the MAB itself. Based on the demands of the group, and mainly of MAB, Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – Ibama (Brazilian Institute of Environment and Renewable Natural Resources) determined that, within the continuous process of environmental licensing of the hydroelectric plant, a study should be carried out on the impact of the formation of the Santo Antônio HPP lake.

Subsequently, a complementary study was needed to assess the soaking (*encharcamento*) of the soil, the impact on the structures of the houses and the elevation of groundwater, compromising wells and pits. Both studies were carried out by the Institute of Technological Research (IPT), and the data collection started in November 2017. The first part of the study report was presented on 18 September 2018, and the second on 26 February 2019. Now, from the data collected in the study, the members of the Monitoring Group will analyse the results and construct demands and proposals for the problems and guarantee the rights of the affected local population. Without the analysis of the study, it is impossible to determine the feasibility of installing a sanitation network, but, in addition, what the concrete conditions resulting from all the impact factors that Jaci-Paraná present, MAB evaluates that the resettlement of families as fast as possible is the only viable way out. It is important to note that, even though Santo Antônio Energia started its construction in 2008 and its operation in 2012, it has not yet fulfilled all its social and environmental commitments, the affected population is still struggling to resolve the hydroelectric plant's "liabilities".

BIBLIOGRAPHY

ASSUNÇÃO, Aldina Gomes de

Dinâmica territorial em Jaci-Paraná: reflexos da implantação das hidrelétricas do Rio Madeira. Rondônia, Núcleo de Ciências e Tecnologia, Universidade Federal de Rondônia, 2011, 87 p. (Master's thesis).

BARAÚNA, Gláucia Maria Quintino

Atingidos por barragens: conflitos socioambientais no Rio Madeira. Manaus: Ufam, 2014.

INSTITUTO TRATA BRASIL

Principais estatísticas de saneamento no Brasil. 2019. Accessed 12 February 2020 <<http://www.tratabrasil.org.br/saneamento/principais-estatisticas/no-brasil/agua>>.

LAUTHARTTE, Leidiane Caroline

Avaliação da qualidade de água subterrânea no distrito de Jaci-Paraná, *município de Porto Velho-ro*. Porto Velho, Programa de Pós-Graduação em Desenvolvimento Regional e Meio Ambiente, Fundação Universidade Federal de Rondônia, 2013, 67 p. (Master's thesis).

MINISTÉRIO PÚBLICO DO ESTADO DE RONDÔNIA

Relatório de análise do conteúdo dos Estudos de Impacto Ambiental (eia) e do *Relatório de Impacto Ambiental (Rima) dos aproveitamentos hidrelétricos de Santo Antônio e Jirau, no rio Madeira, estado de Rondônia*. Rondônia, dez. 2006, 816 p. Accessed 5 February 2020 <http://philip.inpa.gov.br/publ_livres/Dossie/Mad/Documentos%20Oficiais/Madeira_COBRAPE/11118-COBRAP-report.pdf>.

WHO & UNICEF

Progresos en materia de agua potable, saneamiento e higiene. Informe de actualización de 2017 y linea de base de los ods. Ginebra: Organización Mundial de la Salud y Fondo de las Naciones Unidas para la Infancia, 2017. Accessed 5 February 2020 <https://www.unicef.org/spanish/publications/files/Progress_on_Drinking_Water_Sanitation_and_Hygiene_2017_SP.pdf>.

PAHO BRAZIL & WHO BRAZIL

“OMS: 2,1 bilhões de pessoas não têm água potável em casa e mais do dobro não dispõem de saneamento seguro”. *Organização Pan-Americana de Saúde*, 12 jul. 2017. Accessed 5 February 2020 <https://www.paho.org/bra/index.php?option=com_content&view=article&id=5458:oms-2-1-bilhoes-de-pessoas-nao-tem-agua-potavel-em-casa-e-mais-do-dobro-nao-dispoem-de-saneamento-seguro&Itemid=839>.

ZEN, Eduardo Luiz (coord.)

Metodologia para o diagnóstico social, econômico e cultural dos atingidos por barragens. Brasília: Ipea, 2014. Accessed 5 February 2020 <http://www.ipea.gov.br/portal/images/stories/PDFs/livros/livros/livro_atingidos_barragens.pdf>.

WOMEN CONSTRUCTING ALTERNATIVE FOR ACCESS TO DRINKING WATER IN THE RIBEIRA VALLEY (SP)

Natália Lobo & Sheyla Saori Yuzuka (SOF)

The Upper Ribeira Valley (*Alto Vale do Ribeira*) is a region of the Ribeira Valley that includes the municipalities of Iporanga, Apiaí, Ribeira and Itaóca. It is marked by the presence of the *Serra do Mar* (*Sierra of the Sea*), which forms a mountainous and forested landscape where the Rio [river] Ribeira passes. This territory was one of the first settlement centres of the region which started from the discovery of the occurrence of gold, which was a very important economic cycle for the place. The first settlement of the Ribeira Valley formed by gold miners was in Apiaí, on the Gold Hill (*Morro do Ouro*), in 1771, and the exploration continued until 1880. The gold cycle ended, but the mining of other materials and the agriculture remain the main activities of the region. Since 2013, SOF (*Sempre-viva Organização Feminista*, Evergreen Feminist Organization) has been working in this territory, specifically in the municipalities of Apiaí and Itaóca, with groups of family agriculture and *quilombola* women. With the objective to survey the women's perceptions about the contamination of water, in the Garcias neighbourhood of the town of Apiaí individual conversations and a focus group were conducted with the presence of four women. In Itaóca, with women from the Fazenda and the Caraças neighbourhoods, a focus group gathered with the presence of seven women.

The municipality of Apiaí has a very strong presence of family agriculture. Almost half of the town's population lives in the countryside, and agriculture and livestock are the main sources of income and subsistence. Tomato cultivation gained strength in

Apiáí between the 1950s and 1970s, and since then it is one of the region's main economic activities, along with cement production. The tomato culture is historically related to cases of pesticide poisoning. Research in the late 1990s already showed alarming rates of people hospitalized for intoxication in the municipality (only in 1996, the rate was 133 hospitalizations per 100,000 inhabitants), with one third of the cases occurring with people under 18 years of age. In 2010, the index was 147 intoxications per 100,000 inhabitants¹ (VICENTE *et al.*, 1998).

Tomato is the main item of family agriculture in the region, which is the largest producer of this food in the State of São Paulo. Over 15 tons of tomato was grown in Apiáí in 2017 (Agricultural Census of 2017). Much of this production is to supply the domestic market, only in rare cases the Brazilian crop is exported to Mercosul [Latin-American South Market Union] countries. This production is carried out in farmers' partnerships with local entrepreneurs or traders, who finance the crops based on the farmers' obligation to provide the harvest in the post-harvest period in accordance with the Ceasa price, which is fluctuating (TOMAS, 2011).

Besides the problem of the absence of price fixing, farmers expose their health during the cultivation of tomato. It is estimated that a conventional tomato producer in the municipality of Apiáí submits his or her crop to 36 poison sprays per cycle (Tomas *et al.*, 2009). This reality is very similar to that of the municipality of Itaóca, which was linked to Apiáí until 1991. With a population of only 3,228 habitants, according to the last census, the town has agriculture (and the tomato) as one of its main economic activities.

¹ Brazil's index for 2010 was 4.1 poisonings per pesticide per 100,000 inhabitants, according to data from the Ministry of Health (Sinan). This shows that the poisoning in the municipality of Apiáí is alarming. The Fiocruz institute estimates that there is an underreporting of these cases of about 1:50.

Studies by Fabio Leonardo Tomas (2011) comparing different forms of tomato cultivation in the region conclude that agroecological productions have a lower occurrence of pest insects, bacterial diseases, fungal diseases and viral diseases than conventional production. It was noticed that the agroecological crops did not present soil compaction, while they had a high index of organic material and an excellent structuring, characteristics typical of sites with presence of forests. The so-called *requeima* (late blight, *phytophthora infestans*), a very recurrent disease in the crop, was well controlled in the agroecological crop with the use of Bordeaux mixture, a natural defensive produced by the workers themselves and allowed in the production on agroecological basis.

Tomato culture is usually accompanied by the spraying of several different types of agrochemicals, several times per cycle. In the focus groups and the individual interviews with women farmers of the region, as well as in academic research and conversations with agricultural workers, it was not possible to obtain accurate information about the products used by tomato bosses. It was clear that the use of poison is somewhat veiled and that the details of this process are known only to the “tomato boss”, a person who arrives in the region only at the time of cultivation, with the technological set ready, in search of a lessee and temporary workers.

For this research, we chose to use a marker pesticide, which is widely used in culture, to relate the statements of women with the behaviour of the product in human health and water. For our study, Acephate was chosen, as it is an active ingredient of the agrochemical marker, because, according to the Program of Analysis of Agrototoxic Residues of Anvisa (AGÊNCIA NACIONAL DE VIGILÂNCIA SANITÁRIA, 2017), it was the most detected product in the tomato samples selected for the study. Acephate, belonging to the group of organophosphates, is also the third most used active principle in Brazil, being part of insecticides and acaricides of different commercial brands.

Anvisa classifies this active principle as moderately toxic to humans². It is a highly mobile product that can travel in the soil and contaminate the groundwater table. It is persistent in the environment and one of the products of its degradation, Methamidophos, may be even more toxic than Acephate itself. Although a product known to be toxic and dangerous, the publication *Geografia do Uso de Agrotóxicos no Brasil e Conexões com a União Europeia* (Geography of the Use of Agrochemicals in Brazil and Connections to the European Union) (BOMBARDI, 2017) shows that there is no established limit of Acephate residues allowed in drinking water in Brazil. In the European Union, where the use of this active principle is prohibited, the limit is 0.1 µg.

Acephate can make up different compounds which may be more or less lipophilic, that is, which may have affinity to the fat tissue within the body. The compounds with more lipophilic can achieve significant concentrations in the body, including in the nerve tissue, and be stored in the tissue for several days. This action tends to be more pronounced in women, who have proportionally more body fat than men. This characteristic also applies to Methamidophos, already mentioned above.

Regarding the surface water contamination, Acephate has a persistence of up to 13 days in the water bodies and, because it is very mobile in the soil, it has leachability and can reach groundwater. Methamidophos has a high potential for water contamination because it is very soluble in this environment and has a low tendency to concentrate in the sediments, which increases the

² The toxicological classification is based on the amount of an active principle that is necessary to lead to death or irritate the mucous membranes or the skin. The classification of the product as moderately toxic does not mean that it cannot be lethal or cause serious harm to health, but only that a considerable dose is needed to achieve this effect.

capacity of the active principle to remain in the water bodies. It has a considerable persistence in the environment, being able to stay up to 300 days in the water without degrading.

Both Acephate and Metamidophos belong to the group of organophosphates, a chemical group known for its high toxicity and responsible for a large number of poisonings and deaths both of humans and animals. According to the label of the products themselves and the technical note of Anvisa, they act by inhibiting enzymes that act on the nervous system, which leads to symptoms such as decreased heart rate, diarrhoea, fatigue, headaches, tremors, insomnia, seizures, coma and even death. It is known that the effect of enzymatic inhibition can either last for only a few hours or may reach days or be irreversible, depending on the compound, concentration and amount ingested.

The book *Os amargos frutos do trabalho brutal* (The bitter fruits of brutal work), result of a survey of the tomato cultivation workers of the Ribeirão Branco region, which is also in Ribeira Valley, concluded that most of the people employed in the activity are women. The author reports that while the official information on intoxication are mostly on cases in men, he found in his field survey far more women working in the crop, which indicates a possible underreporting in cases of intoxication in women. Although it indicates that women are majority in this work, the research does not cite precise numbers on the female participation in the tomato cultivation. In confluence with the indicative that most of the labour force in this cultivation is female, the National Household Sample Survey (IBGE, 2006) shows that 57% of the work done in the cultivation of vegetables, such as tomato, is performed by women. The author also draws attention to the great occurrence of work-related diseases in the Ribeira Valley, both in agriculture and mining: to the environmental disasters in the region caused by lead mining, and to the decrease of the adult population in the region, as a result of the youth exodus from the region.

It is known that in the Apiaí region there are deposits of lead and zinc and that their mining for a long time caused the contamination of the Rio Ribeira de Iguape by arsenic, product formed in the extraction of ores. The company Plumbum, now closed, was responsible for contaminating with lead the soil of many regions and even the water body of the Rio Ribeira itself (CETEM, 2011). Medical studies have already confirmed the presence of arsenic and lead in blood and urine samples from the population of several municipalities in the Alto Vale region, which shows that mining is also an activity that, together with agriculture, has generated strong health impacts on people (SILVA, 1997). This issue was strongly stressed, mainly among the women of Itaóca, and is extremely important at the present time, knowing that there are interests of new miners to settle in this territory.

There are only few studies that deal with the impact of pesticides on women's health. It is possible to make some assumptions using data on the chemical structure of the venom molecules: if they are more lipophilic compounds, as is the case with most pesticides, they tend to impact more the health of women who have a higher percentage of body fat compared to men.

In studies with farmers in Thailand, it was found that there were many more illiterate women who did not know the rules of pesticide application than men, indicating that women are more exposed to this type of product. Very similar situations are attested in studies from different parts of the world. The fact that women are responsible for most of the domestic work also makes them handle more products against domestic pests and wash most of the clothes contaminated by agrochemicals in the field, which puts them in contact with poison indirectly (CARVALHO & ALONZO, 2018). A study by Abreu and Alonzo (2016) on the use of pesticides in family farms in Lavras (State of Minas Gerais) concluded that in more than 80% of the productive units surveyed, women are responsible for washing clothes and the PPE used by other mem-

bers of the family in the field, and that this activity generally is not done with protection, is not performed separately from the washing of other clothes and that the washing water is not treated before being poured away.

Some pesticides contain substances called endocrine disrupters that have the ability to activate estrogen receptors in the body even in the absence of estrogen, such as in the body of children before puberty, which can lead to an early puberty. This phenomenon is much more common in the girls' body (there are studies that indicate that the ratio is 8:1). Aguiar (2017) witnessed a recurrence of this phenomenon in children and adolescents of the Chapada do Apodi region in the State of Ceará, where agribusiness has been expanding greatly through the increase of the irrigated perimeter for fruit growing.

The fact that women often do jobs that require fine and delicate motor coordination, which are very important skills in floriculture and fruit growing, for example, but which are treated as natural female characteristics, makes them be more exposed to pesticides. London *et al.* (2002) found that women working in greenhouses in Zimbabwe and Ecuador, for example, worked in temporary and precarized jobs that coincided precisely with the poison spray seasons. As they need to have a good hand-feel to carry out the work they avoid gloves, which increases the exposure to pesticides and the possibility of absorbing them through the skin.



Alto Vale do Ribeira (SP)

Production yard, Castelhanos neighborhood

Photo by Sheyla Saori.



PERCEPTIONS OF WATER CONTAMINATION BY THE WOMEN FARMERS

Through the focus groups and individual conversations, women from the Caraças and Fazenda neighbourhoods of Itaóca and the Garcias neighbourhood of Apiaí reported that the water used today is piped and treated by a water supply company. Only in one rural neighbourhood, in the Quilombo Cangume of the Itaóca municipality, the water that supplies the neighbourhood comes from the springs and its treatment is done through septic tanks³. In the settlement Professor Luiz D. Macedo (pds) of Apiaí, water is served through wells drilled by the Incra⁴, but it still does not cover all the settlements, and some women still have to carry water to irrigate vegetable gardens and back gardens.

The Garcias community is a rural neighbourhood and has a history of tomato growing. Older women said that it was very common that people presented respiratory and allergic diseases due to the use of pesticides. One of the interviewed women, who now produces agroecological tomatoes, says that her choice not to use “poisons” in agriculture is due to the bad experiences she made during her work with conventional tomato. The women said they did not know the names of the products but identified their intoxications in people:

“I had a neighbour who always worked with poison, he wore always the same clothes to spray, I think he did not even

³ Treatment of excrements by decantation and action of anaerobic bacteria, through tanks made of bricks or other low-cost material. A simple system widely adopted by rural communities.

⁴ Instituto Nacional de Colonização e Reforma Agrária (National Institute of Colonization and Agrarian Reform): executive power that establishes agrarian reform settlements.

wash them because he knew they were full of poison, he appeared with his face and breast red all over after applying the product. We warned him that it was dangerous, that he had to protect himself. He died early with a brain tumour, and I know it was because of the poison”.

Another case cited was the suicide of a resident of the neighbourhood due to debts acquired for the conventional planting of the tomato: “The contamination exists not only in the environment, but also in the head of people; conventional farming is very expensive and uses a lot of poison”. The health worker in the neighbourhood said that in former days she had to go down to the river and the springs to talk to the “tomato bosses”, as the mixture of the poisons and the cleaning of the application equipment were carried out near the water sources.

During the conversations we asked the women about the clothes used in the tomato work, if they wash their clothes in the same water with other family clothes, some said that they never thought about the possibility of contamination or the proper disposal of the washing water. On the other hand, women who work directly with conventional farming and the application of agrochemicals have been attentive about the contamination and have stated that in addition to separating the clothes, they try to protect themselves during work. One woman reports that “tomato bosses” spray pesticides in the presence of field workers and have never warned them against the risks of contamination or encouraged them to use PPE (Personal Protection Equipment).

The Itaóca group, from the Caraças and Fazenda neighbourhoods, reported that ten years ago, before their access to piped water, the community used the water of the Rio Ribeira de Iguape. Everyday activities like cooking and washing clothes and dishes were done with this water. The women remember that going to the river was an opportunity to talk while doing the washing and bath-

ing the children: “The meetings at the river were the moments we had to catch up with the news; it was a good time, but at that time the children had more diseases as well.” This statement about the importance of meeting each other at the rivers also arose among the women of the PDS settlement:

“Before, when this was a camp, the edge of the streams was the best place to meet because we could think about details of our organization and also wash the clothes and the dishes; the water that comes out of the tap today also separated us” (Farmer woman living in the settlement).

At the same time as they extol the period in which they used the water directly from the river, the women remember the diseases that this water brought, such as stomach aches and skin diseases. Water pollution also interferes with the time and intensity of their work; some women claim to have still spine and joint pains because they carried buckets of water from the streams for the use in the camp: “When the water was murky in that place we had to fetch water from another spring, further away. And the buckets were many.”

When asked about tomato cultivation and the presence of pesticides, the Itaóca group stated that on days of spraying the river “changed colour” and that they only waited for the water to “be normal again” to continue using it. Another issue which came up and corresponds to the period of intensive tomato cultivation is about the many families, but mainly men, who come to live in the communities during the cycles and harvests of the agricultural production. The women said that the people who came to work on the tomato farm occupied precarious houses, built of plastic sheets and cardboard:

“The men harassed the women of the neighbourhood, fussed with the younger ones, and a lot of small bars which

sell alcoholic beverages that exist today started at that time to meet the needs of those men” (Janete Dantas, farmer of the Fazenda neighbourhood, Itaóca).

This example shows a reality similar to what occurs in other territories occupied by the capital. The logic of labour exploitation appropriates the women’s bodies and is amortized by the high consumption of alcoholic beverages, a relation imbricated to the advances of agribusiness, which ends up affirming capitalism and patriarchy in local “development” projects.

When raising the issue of water contamination, the women recalled the period of mining activity of the company *Plumbum do Brasil Ltda.* in the region. The mining company was installed in the municipality of Adrianópolis (State of Paraná), using the waters of the Rio Ribeira de Iguape. They said that the mining company was dumping contaminants directly into the river and that there was a time when the public ministry banned the use of water by communities because of contamination. This company started to explore lead and silver in the municipality in 1954. Due to the depletion of the deposits, the company closed in 1995, leaving great environmental liabilities. Studies show that in the area near the decommissioned refinery of the company, the accumulation of industrial process waste deposited over the years in the open air has led to contamination of the soil by lead (CUNHA *et al.*, 2006). Rejects from the Panelas mine, another old property of the company in Adrianópolis, reached the Rio Ribeira de Iguape, because they conducted the waste and effluent directly into the riverbed. The cases of contamination began to be reported, and little was disclosed or declared a real risk situation for the local population.

The farmer women report that it was a very confusing time for people because there was no other place or other means of water supply and that use continued normally even after the impediment. The women described that fishing was very common

at this time, and that the fish appeared floating dead because of the contamination. In the same period, after the mining activities were closed, the workers were dismissed, and the families received visits from the company, claiming that people would be compensated for the contamination, but until today, nothing has been submitted. Cases like this one were also reported by communities on the Rio Camaquã, in the State of Rio Grande do Sul, where the presence of mining companies left only negative balances for the region, such as river pollution, deforestation and the death of biological diversity.

FEMINIST ALTERNATIVES: IN DEFENCE OF OUR BODIES AND THE TERRITORIES

Some reports and research on water in the Alto Vale do Ribeira region show us how the cycles of the so-called development projects for the territory cause impacts on the lives of women and organize the community around the precariousness of work. The lack of knowledge about the contamination caused by agrochemicals, added to the conditions of production of agribusiness as an income alternative for the people, naturalizes and makes common the use and application of toxic products among the farming families. It was also noticed that the issue of water contamination is accompanied by reports on the precariousness of work and life when tomato farming and mining projects settle in the territory, and also when women report the work overload when searching for sources of clean water in more distant places.

The rural women demonstrate that they are aware of the problems of the territory: they perceive changes in the environment, pollution in rivers, death of fish, diseases in children, new diseases and pests in agriculture, etc. And it is them who have also maintained the biodiversity of the territory: they collect and store seeds,

exchange seedlings of old plants and recipes, raise animals in the yard and plant without pesticides.

The groups of women with whom *SOF* works in the Ribeira Valley have self-organized to deal with agroecology and ways of producing without the use of pesticides: seeking collective work in the implantation of techniques that favour their work in the fields, visualizing production alternatives that minimize the use of chemicals, and adapting to social technologies to minimize the impact of the heavier work. This is the case of the use of fertilizer syrups, household health recipes, adoption of soil cover, raised planting beds, among others. The women have also debated and organized themselves in topics such as self-management in commercialization, solidary economy and the use of herbal medicines to resist the medicalization of the body and the advancement of the agribusiness circuit in the region.

Agroecology proves itself as a production model that, the more it expands, the more it generates a balance in agroecosystems that, in the long term, makes the use of agrochemicals unnecessary. In this sense, the case of the Professor Macedo settlement in Apiaí is an example: a territory that preserved a forest component and *das* sheltered an agroecological tomato crop for many years, now reaps the fruits of this system in the form of a very low incidence of pests and diseases in the plantations, due to the ecological balance that was established in the landscape as a whole.

The commercialization methods based on the solidarity economy and in short circuits, strengthened by agroecology, reveal themselves much more attractive to the women than the marketing practices usually imposed by tomato bosses, where farmers have no autonomy to fix the prices, which in this case are determined by the fluctuating and unsafe prices imposed by the market.

The women report various situations in which their experiences with agroecology are essential to provide more quality of life for themselves and their families. Generally, agroecological

production is linked to production for self-consumption, with production on a smaller scale and aimed at a local market such as fairs and sales in the community itself. The large-scale production of tomatoes in the conventional way requires land leases, large costs with agrochemicals, employment of workers and longer working time (six to twelve hours) in the crop. In agroecological production, promoted by the local commerce circuit, market proximity and prioritizing the production of self-consumption, differs in time and cost of production: it requires two to three hours in agricultural production and less production technology when compared to conventional. In addition to the fact that the work is run by the family itself and on their own land.

The production of most of the food in the own garden, the cultivation and use of medicinal plants, the extraction of plants from the forest for food, the maintenance of traditional flour-making techniques, the habit of storing and improving its seeds, among many others things, make it possible for women to have autonomy over their life and health without having to participate in the agribusiness logic. Although most of them still have difficulty in commercializing their production, the production for self-consumption already generates an independence from the market, which represents the real possibility of remaining in the territory without having to expose themselves to the insecure and exploratory work in conventional tomato production.

The World March of Women affirms that the full autonomy of women in the territories is only constructed when the big projects of the capital, such as agribusiness, extractivism and mining, are deconstructed, for they put people's lives, water, forests and biodiversity products as elements to be exploited unlimitedly by the market. Other new ways of relating to the economy and the environment are also being constructed in the quest for autonomy, placing the centrality of care for life and nature as a paradigm of sustainability based on equal access to territory.

BIBLIOGRAPHY

AGÊNCIA DE DEFESA AGROPECUÁRIA DO PARANÁ

Agrotóxicos – Inseticidas. Bula Acefato Nortox. Curitiba. Access 6 February 2020 <<http://www.adapar.pr.gov.br/arquivos/File/defis/DFI/Bulas/Inseticidas/acefatonortox.pdf>>.

Agrotóxicos – Inseticidas. Bula Metamidofós Fersol 600. Curitiba. Access 6 February 2020 <http://www.adapar.pr.gov.br/arquivos/File/defis/DFI/Bulas/Inseticidas/METAMIDOFOS_FERSOL_600.pdf>.

AGÊNCIA NACIONAL DE VIGILÂNCIA SANITÁRIA

Nota técnica: reavaliação toxicológica do ingrediente ativo Acefato. Brasília: Anvisa, 2017. 46 p. Access 6 February 2020 <<https://www.cevs.rs.gov.br/upload/arquivos/201712/06131307-nota-tecnica-do-acefato.pdf>>.

Programa de análise de resíduos de agrotóxicos em alimentos: relatório das análises de amostras monitoradas no período de 2013 a 2015. Brasília: Anvisa, 2016. 246 p. Access 6 February 2020 <http://portal.anvisa.gov.br/documents/111215/o/Relat%C3%B3rio+PA-RA+2013-2015_VERS%C3%83O-FINAL.pdf/494cd7c5-5408-4e6a-boe-5-5098cbf759f8>.

AGUIAR, Ada Cristina Pontes

Más-formações congênitas, puberdade precoce e agrotóxicos: uma herança maldita do agronegócio para a Chapada do Apodi (ce). Fortaleza, Faculdade de Medicina, Universidade Federal do Ceará, 2017, 199p. (Master's thesis).

BOMBARDI, Larissa Mies

Geografia do uso de agrotóxicos no Brasil e conexões com a União Europeia. São Paulo: flch-usp, 2017. 296 p. Access 6 February 2020 <<http://conexaoagua.mpf.mp.br/arquivos/agrotoxicos/05-larissa-bombardi-atlas-agrotoxico-2017.pdf>>.

CALDAS, Luiz Querino de Araújo (coord.)

Intoxicações exógenas agudas por carbamatos, organofosforados, compostos biperidílicos e piretroides. Niterói: Centro de Controle

de Intoxicações, 2000. 43 p. Access 6 February 2020 <<http://www.cvs.saude.sp.gov.br/zip/intoxicacoes%20agudas%20-%20carbamat%20e%20organoclorados.pdf>>.

CARVALHO, Amália Oliveira & ALONZO, Herling Gregorio Aguilar

“A mulher e suas relações com o cotidiano da agricultura familiar e uso de agrotóxicos”. *Cuba Salud* 2018, Havana, 2018. Access 6 February 2020 <<http://www.convencionsalud2018.sld.cu/index.php/convencionsalud/2018/paper/view/587>>.

CENTRO DE TECNOLOGIA MINERAL DO MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO

“Chumbo contamina solo e habitantes da região do Alto Vale do Ribeira”. Estudo de caso do Programa de Meio Ambiente e Resíduos da Produção Mineral, Rio de Janeiro, 2011, 3 p. Access 6 February 2020 <https://www.cetem.gov.br/santo_amaro/pdf/Vale_do_Ribeira.pdf>.

CUNHA, Fernanda Gonçalves *et al.*

“Diagnóstico ambiental e de saúde humana: contaminação por chumbo em Adrianópolis, no estado do Paraná, Brasil”. In: Silva, Cássio Roberto *et al.* (ed.). *Geologia médica no Brasil: efeitos dos materiais e fatores geológicos na saúde humana, animal e meio ambiente*. Rio de Janeiro: CPRM – Serviço Geológico do Brasil, 2006. Access 6 February 2020 <<http://rigeo.cprm.gov.br/jspui/handle/doc/1211>>.

INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA

Pesquisa nacional por amostra de domicílios. Síntese de indicadores 2006. Rio de Janeiro: IBGE, 2007. Access 6 February 2020 <<https://biblioteca.ibge.gov.br/visualizacao/livros/liv36018.pdf>>.

LONDON, Leslie *et al.*

“Pesticide usage and health consequences for women in developing countries: out of sight out of mind?” *International Journal of Occupational and Environmental Health*, England, 8 (1): 46-59, jan. 2002. Access 6 February 2020 <<https://www.tandfonline.com/doi/abs/10.1179/oeht.2002.8.1.46>>.

MARCHETTI, Mara & Luchini, Luiz Carlos

“Sorção/dessorção e mineralização do inseticida Acefato em solo”.
Pesticidas: Revista de Ecotoxicologia e Meio Ambiente, Curitiba, 14: 61-72, jan.-dez. 2004.

MEDEIROS, Márcia Noelle Cavalcante *et al.*

“Intoxicação aguda por agrotóxicos anticolinesterásicos na cidade do Recife, Pernambuco, 2007-2010”. *Epidemiol. Serv. Saúde*, Brasília, 23 (3): 509-518, set. 2014. Access 6 February 2020 <http://www.scielo.br/scielo.php?pid=S2237-96222014000300509&script=sci_abstract&tlng=pt>.

RIBEIRO, Robson de Jesus

Os amargos frutos do trabalho brutal: agrotóxicos e saúde do trabalhador. Rio de Janeiro: Planeta Azul, 2016. 55 p.

SALUSTIO, Pedro Eduardo Barbieri

“Influência da biodiversidade florestal do entorno e da distância entre cultivos de tomate (*Lycopersicum sculentum*), na dinâmica e ocorrência de insetos e doenças”. *Revista Brasileira de Agroecologia*, Porto Alegre, 4 (2): 2 425-2 428, nov. 2019.

SILVA, Robson Henrique Pinto da

Geoquímica e impacto ambiental do arsênio no Vale do Ribeira (sp-pr). Campinas, Instituto de Geociências, Universidade Estadual de Campinas, 1997. (Master's thesis). Access 6 February 2020 <<http://repositorio.unicamp.br/jspui/handle/REPOSIP/287203>>.

TOMAS, Fabio Leonardo

A influência da biodiversidade florestal na ocorrência de insetos-praga e doenças em cultivo de tomate no município de Apiaí-sp. Piracicaba, Escola Superior de Agricultura Luiz de Queiroz, Universidade de São Paulo, 2011. 90 p. (Master's thesis).

VICENTE, Maria Carlota Meloni *et al.*

“Perfil do aplicador de agrotóxicos na agricultura paulista”. *Informações Econômicas*, São Paulo, 28 (11): 35-61, nov. 1998.

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The Water for Life Project was developed together with Christian Aid and the National Council of Christian Churches of Brazil (Conic) partner organizations in Brazil, with the aim of strengthening ecumenical networks and the capacity of faith communities to advocate for the defence of our common goods. The project bets on the importance of the Brazilian ecumenical movement – and its international relations – in actions for social and environmental justice and its potential to multiply.

Activities included meetings, seminars, training activities for religious leaders, advocacy actions with communities, communication campaigns, and informative stage plays. In collaboration with international networks, Christian Aid, Conic and its partners mapped theological productions about water and developed training courses for faith leaders. The initiatives also strengthened collaboration between faith and secular organizations, such as social movements and associations. The approximation with the experiences of other Latin American countries with great learning in relation to the challenges of water privatization (Bolivia and El Salvador) and with global networks (World Council of Churches – Ecumenical Water Network and ACT Alliance) show not only the global relevance of the issue, but also the great capacity for articulation of the movement.

We hope that this publication will be a contribution for churches and FBOs to continue improving their methods and analysis in the struggle for solidarity, equality and justice.

