

# Connecting the right to health and anti-extractivism globally

## *Conectando o direito à saúde e o antiextrativismo globalmente*

Erika Arteaga-Cruz<sup>1,2,3</sup>, Baijayanta Mukhopadhyay<sup>4</sup>, Sarah Shannon<sup>5,6</sup>, Amulya Nidhi<sup>7,8,9</sup>, Todd Jailer<sup>5,6</sup>

DOI: 10.1590/0103-11042020S108

**ABSTRACT** Natural resources are essential to health and are global commons. Recognizing the devastating damage posed by extraction to health and the environment, as well as the erosion of the sovereignty of our governments that have increasingly conceded people's health in the interest of profit and development, is important in framing our resistance. Our communities experience growing displacement, the loss of social services, of land, water and livelihood, heightened militarization, violence and repression, and increased incidence of communicable diseases and health problems resulting from exposure to toxics. All of these are linked to an extractivist project driven by global financial capital promoting an unsustainable and inequitable development model that threatens people's health and the health of the planet. Is it compatible with the right to health to finance national health systems with revenues of activities that intrinsically destroy life? The essay portrays the inconsistency of development policies that fund health/right to health with extractivism and depicts examples of resistance to extractive industries tied to the People's Health Movement (Canada, Turkey, India and Ecuador) in different types of governments. The need to strengthen the link between the right to health struggles and anti-extractive resistance is highlighted.

**KEYWORDS** Economic development. Policy making. Public policy. Environment and public health.

**RESUMO** Os recursos naturais são essenciais para a saúde e são bens comuns globais. Reconhecer os danos devastadores causados pelo extrativismo à saúde e ao meio ambiente, bem como a erosão da soberania de nossos governos, que cada vez mais têm subordinado a saúde das pessoas ao interesse do lucro e do desenvolvimento, é importante para enquadrar nossa resistência. Nossas comunidades sofrem deslocamentos crescentes, a perda de serviços sociais, de terra, água e meios de subsistência, militarização aumentada, violência e repressão e aumento da incidência de doenças transmissíveis e problemas de saúde resultantes da exposição a substâncias tóxicas. Tudo isso está vinculado a um projeto extrativista impulsionado pelo capital financeiro global que promove um modelo de desenvolvimento insustentável e desigual que ameaça a saúde das pessoas e a saúde do planeta. É compatível com o direito à saúde financiar sistemas nacionais de saúde com receitas de atividades que destroem intrinsecamente a vida? Este ensaio retrata a inconsistência das políticas de desenvolvimento que financiam a saúde/direito à saúde com o extrativismo e descreve exemplos de resistência às indústrias extrativas ligadas ao Movimento pela Saúde dos Povos (Canadá, Turquia, Índia e Equador) em diferentes tipos de governo. Destaca-se a necessidade de fortalecer o vínculo entre o direito à saúde e a resistência antiextrativa.

**PALAVRAS-CHAVE** Desenvolvimento econômico. Formulação de políticas. Meio ambiente e saúde pública.

<sup>1</sup>Universidad Andina Simón Bolívar (Uasb) – Quito, Ecuador. erikarteaga@yahoo.com

<sup>2</sup>People's Health Movement (PHM), Extractive Industries Circle – Quito, Ecuador.

<sup>3</sup>Asociación Latinoamericana de Medicina Social (Alames) – Quito, Ecuador.

<sup>4</sup>People's Health Movement (PHM), Extractive Industries Circle – Ottawa, Canada.

<sup>5</sup>Hesperian Health Guides (HHG) – California, United States.

<sup>6</sup>People's Health Movement (PHM), Extractive Industries Circle – California, United States.

<sup>7</sup>Swasthya Adhikar Manch – New Delhi, India.

<sup>8</sup>Silicosis Affected Labour's Organization – New Delhi, India.

<sup>9</sup>People's Health Movement (PHM), Extractive Industries Circle – New Delhi, India.



## Introduction

As health rights activists within the People's Health Movement, we agree that we cannot talk about ecological deterioration and climate change as major threats to our survival without tackling the capitalist structures that produce such environmental devastation. Extractivism is a mode of accumulation that favors extraction of natural resources (minerals such as gold, manganese, bauxite, copper, cobalt, zinc, tin, diamonds, and uranium, and fossil fuels, but also commercial farming, forest, and fishing industries) from countries of the global South that export their resources. The extractivist project began to be structured with the conquest and colonization of America, Africa and Asia<sup>1</sup>. The defence of people's health in the context of extractivism is a concern shared by activists involved with the People's Health Movement from the Americas, Africa, Asia and Europe. Awareness of this shared concern grew in the years leading up to the Third People's Health Assembly, held in Capetown, South Africa in July 2012, where health activists from 15 countries met each other for the first time as an extractives interest group. In these meetings and subsequent discussions, we struggled with the questions: is there a place for extractive industries, if carefully controlled? Is the financing of national health systems with revenues derived from activities that intrinsically destroy life compatible with the right to health? This article shares some reflections from our collective process to answer those questions.

When the first neoliberal theorists developed their proposals (in the 1930s), their main concerns centered on the function of the state, rather than its size. The function of the state – according to Lippmann, Röpke, Rüstow, Hayek, Von Mises, Aron, Rougier – was to serve the market and to achieve capitalist accumulation<sup>2</sup>. In today's context of climate change, capitalist accumulation through resource extraction incorporates not only the value of (human) workers' labor, but also

the products of biogeochemical processes that may be millennia-old, disrupting and destroying the mechanisms that hold our ecosystem in the careful equilibrium required to sustain life. If a state, even one with stated goals of the redistribution of power and resources, bolsters the logic of accumulation through extractive processes that undermine the possibility of long-term survival, can it truly claim to be concerned about protecting its citizen's right to health?

This question is at the core of many important debates around the world, and in particular in Latin America, where a recent (if receding) wave of progressive governments has developed redistributive programs without adequate consideration of the impact of the source of this expansion<sup>3</sup>. We – activists and organizations that work on the right to health – question the idea of considering oil exploitation, mining, forest devastation, etc. as acceptable finance mechanisms for public health programs and the provision of health and social services for the welfare state.

This view leads us to challenge the 'development' myth and its components: progress, economic growth<sup>4</sup>, and modernization. Governments across the world, including importantly in Latin America, have maintained belief in this paradigm of development, whether right- or left-wing, along with their allies in the emerging geopolitical centers of our era: China<sup>5</sup>, India and Russia. Development serves as a fundamental organizing principle of both capitalism and its particular form of the welfare state. In developing economies like India, for example, the pursuit of development is a facade behind which the widespread acquisition of natural resources by large corporations is accomplished. Control of land, forests, mineral resources and other commons is directed into the grasp of private business, diluting people's right to govern and protect them. Governments often claim that these measures are necessary to the pursuit of the state's social development goals, pitting the environment and public health against social well-being, in what we argue is a false dichotomy.

Of course, as health activists, we also question the reasoning by which investment in our current global model of a medical industrial complex will solve health inequities<sup>6</sup>, given that this approach medicalizes life, consigns all health promoting activities to the marketplace, and reduces care to technical acts that pathologize physiological processes such as childbirth<sup>7</sup>. Addressing this perspective regarding public investment for increasing health care coverage, Breilh suggests:

The favorable impact of this policy is masked by the proliferation of unhealthy processes (subject to the conditions imposed by productivism in physically or culturally deteriorated environments), which multiply in the scenarios where people live, work or recreate and whose effect goes against the flow with respect to the healing offered by the health services<sup>8(4)</sup>.

Canada is a prime example of a country that has built a 'welfare state', as imperfect as its social security system might be, upon stolen Indigenous land and the extraction of natural wealth from it, be it furs, fuels, food, or forestry products. This welfare state's purported system of redistribution of wealth obscures the reality of marginalized people and ecosystems whose health is continuously compromised to maintain such systems. The Canadian system has favored the development of welfare programs such as universal health coverage (although it excludes key demographic groups) and unemployment benefits (although with increasingly restrictive access) at the expense of Indigenous peoples who steward the resources Canadian capitalism covets. The First Nations face authoritarian measures including institutionalization in prisons, forced schooling, family separation (sometimes enforced by the welfare state), and dispossession of lands – all of which continue to this day. A coercive state enforces an extractivist model of wealth generation that relies heavily on capitalism, colonialism, police and military force, and authoritarian

repression of Indigenous communities and anyone else who interferes with the process of extraction of natural materials to derive profit from the environment.

The case of Canada is representative of the situation throughout the Americas, even when trying to envision and model a new multipolar world. As was the case for the governments of South America in the now defunct alliance Unasur (Union of South American Nations), extractivism as a pathway of economic integration remained a challenge:

Unasur has been involved in an insurmountable contradiction: the search for autonomy in politics and the consolidation of subordination and economic dependence. That is to say, while generating its own space for the solution of conflicts and the slow construction of a South American strategic thought, the region was also physically reconciled to the circuits and requirements of a neoliberal globalization in crisis. If, in its strategic sense, it was not possible to design a common defence policy, in its extractivist sense, it did not even attempt to break with the 'consensus of commodities' and its disastrous consequences<sup>9(1)</sup>.

In fact, in the energy, finance or commercial sectors, Unasur governments did not challenge neoliberalism or extractivist development as a strategy.

In Ecuador, this situation has led to the stagnation or even deterioration of basic public health indicators, such as maternal mortality, child malnutrition and vaccine coverage. To the surprise of many, in October 2018, the Ecuadorian Ministry of Economic and Social Inclusion released alarming information: Ecuador holds second-to-last place in child malnutrition (23.9%) in the region<sup>10</sup> (above Guatemala but below Honduras, Haiti and Panama). And that after having enjoyed, for nearly a decade, one of the greatest economic bonanzas in Ecuadorian history due to high oil prices generating large investments channeled to the public health sector.

On the other side of the world, by the year 2020 India is set to generate 20,000 megawatts from nuclear power, roughly a 500% increase over current capacity. Twenty-one new nuclear power reactors with a total installed capacity of 15,700 MW are expected to be operational by 2031. Besides the existing 21 nuclear plants, six new ones are under construction. A major hurdle for running Indian nuclear plants is the shortage of uranium. Existing plants are running at only half capacity because, as a non-signatory to the international Nuclear Non-Proliferation Treaty, India has been barred from importing uranium. However, the signing of nuclear cooperation deals with France (September 2008) and the United States (October 2008), provides India access to both nuclear technology and fuel. Significantly, for us as PHM activists, India and Canada signed a uranium deal in 2015<sup>11</sup>, which led to the first shipment arriving in India in 2018<sup>12</sup>. This international collaboration is considered peaceful production of energy for domestic use.

Both operational and planned nuclear plants run risks of radioactive contamination of the environment and abrogation of Indigenous rights amongst Adivasi peoples in India. Uranium mining leads to the loss of Indigenous lands, destruction of livelihoods, and opening the region to uncontrolled consumption pressures as settlers from the plains flood the area. This shift further undermines the position of the Indigenous people within the state and threatens their long-term cultural survival. With regard to health risks, activists point to the grave suffering of tribal people living in the vicinity of the uranium mines at Jadugoda, Jharkhand, where the Uranium Corporation of India Ltd has been mining and processing uranium since 1967. The radiation exposures resulting from the utter disregard for health and safety standards have resulted in a living nightmare of cancers, birth defects, miscarriages and sterility for workers and local communities<sup>13</sup>.

Resistance to nuclear development in India has been significant. In recent times, the proposed nuclear plant in Mithi Virdi,

in the western state of Gujarat, was opposed by local communities due to environmental and safety concerns. People walked out of the environmental public hearing to highlight concerns that the project was violating required safety norms. In the face of intense protest, the project was cancelled, but only to be shifted to another state in the south of India.

## Extractivism and health in Ecuador

In Ecuador, state investment and increased health expenditures have not resolved health problems for the rural population of the Amazon. Five years ago, the exploitation of the Ishpingo-Tambococha-Tiputini (ITT) oil field was announced, located in the center of the Yasuní National Park, a mega-diverse area that also houses uncontacted peoples (Tagaeri-Taromenane) in danger of extinction. The question many ask is whether the right to life of these peoples (Indigenous people) is inferior to the right to health of the population that would benefit from the construction of hospitals funded by oil exploitation in the area. This question begs important reflections regarding benefit and risk: how much new hospital capacity will be needed to respond to cancer cases, genetic malformations or abortions generated by oil exploitation in the affected territories<sup>14</sup>? By September 2013, investment in health in the Amazon exceeded \$ 470 million, covering construction of hospitals in Macas and Sucúa, remodeling of Tena hospital and of 16 hospitals, 322 health centers and posts, and delivery of five ambulances for Orellana<sup>15</sup>. But this hospital-centric curative model has not solved the region's health problems.

By 2017, it had become evident that this state intervention was based on a utopian modernist vision that ignored the profound social and cultural contradictions inherent in an unequal historical development. In practice, these projects became white elephants: unoccupied citadels in the middle of the jungle,

a university (Ikiam –Universidad Regional Amazónica) incompatible with its environment, and underutilized hospitals. It was assumed that these initiatives would reverse the marginal conditions of the Ecuadorian Amazon region and integrate it into a national development project. However, the only thing that advanced was the extraction of oil, minerals and biogenetics<sup>16</sup>.

In Ecuador, the health policies applied in the Amazon region focused on the provision of services, and left aside health promotion based on social participation and the intervention of community organizations and planners to transform social policy for more redistributive and equitable health outcomes. The promotion of Primary Health Care proved incompatible with a state complicit with neoliberalism, an economic system prioritizing profit. The main objective of development was making the expansion of the oil industry viable and, secondarily, opening land to mining projects. Accessing biodiversity resources and knowledge was an added benefit. With this scheme, a totally curative vision of health was optimized: public health services were expanded, and the viability of ancestral systems and practices was reduced. Population health was barely factored into the equation.

The investment in health services did not help the Waorani People (a Northern Amazon Indigenous tribe affected by oil extraction since the 1970s) to protect their land, livelihood, and health. Despite losing an internationally renowned landmark case contesting putting Waorani territory up for sale by international auction without previous informed consent<sup>17</sup>, the Ecuadorian state continues to violate previous informed consent rights regarding whether people want extractivism in their territories or not. A recent alliance between People's Health Movement Canada and People's Health Movement Ecuador/Yasunidos Guapondelig collectives presented an *amicus curiae* ('Friend of the Court' supplementary brief) detailing the health impacts of mining extraction in Quimsacocha, in the

southern province of Azuay, to Ecuador's Constitutional Court. The petition to initiate a popular consultation was denied. This is not surprising. The powerful mining industry controls 15% of Ecuadorian territory in concessions<sup>18</sup>. Ecuador signed an agreement in March 2019 with the International Monetary Fund (IMF) that includes, in the terms of the agreement, funding derived from future mining activities<sup>19</sup>. From October 3rd to October 14th 2019, Ecuadorian Indigenous Movement (Conaie – Confederación de Nacionalidades Indígenas del Ecuador) has been resisting the implementation of economic policies promoted by the IMF. The Ecuadorian social movement struggle is an example of resistance to a mode of living implanted both by the current neoliberal government and by the progressive populist preceding government of Correa.

## Bringing health to contribute to anti-extractive struggles

As health activists, we believe that making visible the health consequences of extractivism is a critical tool we can contribute to struggles against extractivist state and corporate projects. The People's Health Movement as a movement promotes activism connecting the right to health with other struggles, with the goal of strengthening all our movements. We understand that promoting human health, labor rights, fair and just working conditions, and the defence of land and water are all critical components for successful anti-extractive struggles. All too often, the health impacts of extractivist development are intentionally obscured, made inaccessible through technical language and otherwise made difficult for people without specialized educational backgrounds to understand and share.

We can identify a number of successful campaigns that brought both health and workers rights into anti-extractive struggles.

For example, health concerns have been instrumental in defeating the asbestos lobby in Canada, which for years continued to mine and export the substance even though its use was banned domestically as people became aware of the health toll it had on workers. To this day, the lobby tries to minimize the impact of asbestos, but the last mine in Canada closed in 2011 and the federal government placed a new ban on its use in October 2018 - although industry has demanded and won 'exceptional' uses.

Iron and Earth organizes workers in the fossil fuel industry in the Canadian province of Alberta to support a transition to a carbon-free economy, advocating for publicly funded retraining programs and an economy that does not depend on exacerbating climate change. In the United States, the Blue-Green Alliance builds connections between labor and environmental struggles which have incorporated common health concerns as the key linkage between these often opposed struggles.

In Madhya Pradesh, India's second largest state, laborers in quarries and quartz-crushing factories have been waging a battle for more than a decade against the incurable lung disease silicosis, an occupational disease caused by inhalation of silica dust, marked by scarring of lungs. The large numbers of illegal quarries, mines and factories do not fall under the purview of any of the state departments, leaving the mostly migrant workers toiling in these environments completely outside any occupational health or safety coverage. Silicosis Peedit Sangh, working closely with the People's Health Movement of India, brought to light a series of silicosis deaths among unorganized tribal workers and has effectively organized workers' and communities alike to advocate their issues with the National Human Rights Commission, other government stakeholders, and the Supreme Court of India, where workers finally won a victory. The Supreme Court ordered the State governments to provide compensation to families of deceased workers, to rehabilitate ailing patients, and to close noncompliant factories.

Similar struggles involve workers in the slate pencil industry, where exposures to airborne dust levels are 40 to 50 times higher than permissible and also affect people living near the factories. A National Institute of Occupational Health (NIOH) study of the slate pencil factories' neighbors showed that 12.6% had silicosis, 6.3% had silico-tuberculosis, and 8.2% showed features of tuberculosis. These examples illustrate a clear way forward of bringing struggles for workers' health rights and anti-extractive movements together on the same platform to challenge corporate power, strengthen factory and mine regulatory systems, and improve people's health.

The People's Health Movement extractives interest group is increasingly collaborating with campaigns in various parts of the world to bring a health lens to people's struggles against mining. In recent months, People's Health Movement activists from Canada, Ecuador, and Germany have been meeting with activists opposing plans by a Canadian subsidiary company for gold mining in the Mount Ida region in Turkey. The meetings have resulted in a diverse array of supportive actions including the organizing of a network of Canadian groups to release a solidarity statement, providing research support for a literature review of the health effects of mining practices, and collating international examples of successful campaigns against mining that employed a health lens.

## **Vision for People's Health Movement and health activists**

The People's Health Movement is a global network that can challenge many of the inherently deleterious effects on health carried out by capitalist extractivism. At the 4th People's Health Assembly in Dhaka held in 2018, the sharing of experiences among activists led to a resolution connecting environment and health, that emphasized the fact that a developmental

vision based on extractivism is responsible for widespread environmental destruction, the generation of immense quantities of nuclear and chemical wastes, severe soil, air and water pollution, the depletion of the ozone layer, and climate change, all of which have far reaching and negative effects on people's health. With a vision that emphasizes that human health is part of the health of nature as a whole, PHM is dedicated to develop a global campaign against the impact of extractive industries on health. PHM commits itself to support organizations that oppose global extractivist projects and to strengthen struggles for Indigenous peoples rights, land rights, forest rights, and human rights movements that are people's movements. We invite health activists around the world to come together on the PHM platform and value the potential of creating strong links among environmental rights groups and organizations struggling for health rights of organized and unorganized workers.

Extractive industries are based across geographies, and most natural resources are extracted in areas where the marginalized segments such as Indigenous communities inhabit; political economy plays into favour of these companies which often misuse the very State machinery that is supposed to defend its weaker citizens. These industries are politically linked to the most reactionary sectors of the ruling classes and their politicians: Trump and climate change denial, Bolsonaro and destruction of the people and ecology of the Amazon, Modi in India, Putin in Russia, Xi Jinping in China, among others. In fact capitalist accumulation and its logic has not been broken even in progressive governments as the case of Ecuador portrays. A

focus on extractivism and its related ill impacts on collective health, helps keep the pressure on the governments globally. PHM Canada has supported Indigenous activists opposing uranium mines in northern Canada, while activists in India have been brutally repressed for opposing nuclear power plants that use that very same uranium. These obvious connections that PHM could make to enhance a vision of a healthy society are rooted in opposing extractivism as an economic model. PHM activists and experts can work collectively to hold governments, international organizations such as the World Health Organization, the International Labour Organization and other United Nations affiliates accountable to environmental health and the heavy price of economic policies that promote extractive development. The main issue is not a reformed approach to extractivism or promoting sustainable extractivist industries but a new way of relating to the environment and us as part of it, a Good Living (Sumak Kawsay).

## Collaborators

Arteaga-Cruz E (0000-0002-3863-8179)\*, Mukhopadhyay B (0000-0003-2804-6871)\*, Shannon S (0000-0001-9760-4318)\* and Nidhi A (0000-0002-0387-4403)\* contributed to the conception and the design of the work, or to the analysis and interpretation of data for the work; a substantial contribution to drafting the work or critically revising the contents; and approved the version to be published. Jailer T (0000-0001-8496-4592)\* contributed to critically revising the content and approved the version to be published. ■

---

\*Orcid (Open Researcher and Contributor ID).

## References

1. Acosta A. Extractivism and neoextractivism: two sides of the same curse. *Beyond development. Alternative visions from Latin America* [internet]. 2013; 61-86. [accessed on 2019 Oct 2]. Available on: <https://rosalux.org.ec/pdfs/BeyondDevelopment.pdf>.
2. Maldonado X, Arteaga E, Cuvi J. Políticas neoliberales de salud en el Gobierno de Correa. *Lalineadefuego* [internet]. 2017. [accessed on 2019 Apr 26]. Available on: <https://lalineadefuego.info/2017/05/23/politicas-neoliberales-de-salud-en-el-gobierno-de-correa-por-xavier-maldonado-erika-arteaga-y-juan-cuvi/>
3. Gudynas E, Acosta A. La Renovación de la crítica al desarrollo y el buen vivir como alternativa. *Lalineadefuego* [internet]. 2012 Mar 30. [accessed on 2019 Apr 26]. Available on: <https://lalineadefuego.info/2012/03/30/la-renovacion-de-la-critica-al-desarrollo-y-el-buen-vivir-como-alternativa-por-eduardo-gudynas-and-alberto-acosta/>.
4. Raworth K. *Doughnut economics: seven ways to think like a 21st-century economist*. Hartford, VT: Chelsea Green Publishing; 2017.
5. Mantovani ET. Las nuevas fronteras de las commodities en Venezuela: extractivismo, crisis histórica y disputas territoriales. *Ciencia Política*. 2016; 11(21):251-285.
6. Relman AS. The new medical-industrial complex. *N. Engl. J. Med.* 303(17):963-970.
7. Greenfield B. Midwife's arrest shines light on rural America's home birth 'crisis' [internet]. 2019 [accessed on 2019 Feb 26]. Available on: [https://www.yahoo.com/lifestyle/midwifes-arrest-shines-light-rural-americas-home-birth-crisis-200121923.html?src=community&fbclid=IwAR3TnH\\_XXt54TINN\\_Z7q-lnUpAuIWHaQAvpQufoXthFSfm3RqA1T7tSjqrY](https://www.yahoo.com/lifestyle/midwifes-arrest-shines-light-rural-americas-home-birth-crisis-200121923.html?src=community&fbclid=IwAR3TnH_XXt54TINN_Z7q-lnUpAuIWHaQAvpQufoXthFSfm3RqA1T7tSjqrY).
8. Breilh J. La Salud en el Neoproductivismo con Gobernanza. En: Conferencia Anual Ecuador 2014; 2014 Nov 10; Quito: Simon Bolivar Andean University; 2014. p.1 - 22.
9. Benzi D, Narea M. ¿Y eso con qué se come? Prosur o la farsa de una metamorfosis conservadora [internet]. *Desinformémonos*. 2019 Mar 20. [accessed on 2019 Mar 26]. Available on: [https://desinformemonos.org/y-eso-con-que-se-come-prosur-o-la-farsa-de-una-metamorfosis-conservadora/?fbclid=IwAR14mbU82UNAu-N3Mt\\_sb2-\\_Sa1vpz3lkShbdz42Glyh2cWu60iqGoiX7kY](https://desinformemonos.org/y-eso-con-que-se-come-prosur-o-la-farsa-de-una-metamorfosis-conservadora/?fbclid=IwAR14mbU82UNAu-N3Mt_sb2-_Sa1vpz3lkShbdz42Glyh2cWu60iqGoiX7kY).
10. Edicionmedica. Ecuador presenta uno de los índices más altos de desnutrición en menores de 5 años en Latinoamérica [internet]. *Redacción Médica*. 2018 Oct 15. [accessed on 2019 May 26]. Available on: <https://www.redaccionmedica.ec/secciones/salud-publica/ecuador-presenta-uno-de-los-indices-mas-altos-de-desnutricion-en-menores-de-5-anos-93003>
11. Mukhopadhyay B, Hanson L. Harper and Modi, the Nuclear Prime Ministers. *Briarpatch Magazine* [internet]. 2015 Apr 4. [accessed on 2019 May 26]. Available on: <https://briarpatchmagazine.com/blog/view/harper-and-modi-nuclear-prime-ministers>.
12. Roy CD. First tranche of Canadian uranium for India's nuclear reactors arrives after four decades. *Economic Times* [internet]. 2018 Jul 14. [accessed on 2019 May 26]. Available on: <https://economictimes.indiatimes.com/news/defence/first-tranche-of-canadian-uranium-for-indias-nuclear-reactors-arrives-after-four-decades/articleshow/50240479.cms>.
13. Shukla C. Jadugoda: The Nuclear Graveyard. *Hindustantimes* [internet]. 2019. [accessed on 2019 June 8]. Available on: <https://www.hindustantimes.com/static/groundglass/jadugoda-the-nuclear-graveyard.html>.
14. Hurtig AK, San Sebastián M. Geographical Differences in Cancer Incidence in the Amazon Basin of Ecuador in Relation to Residence near Oil Fields. *Int J Epidemiology*. 2002; (5):1021-27.
15. Ministerio de Salud Pública. Inversión en Salud en la Amazonía supera 470 millones de dólares [internet]. 2013. [accessed on 2017 Dec 11]. Available on: <http://>



[www.salud.gob.ec/inversion-en-salud-en-la-amazonia-supera-los-470-millones-de-dolares/](http://www.salud.gob.ec/inversion-en-salud-en-la-amazonia-supera-los-470-millones-de-dolares/).

16. Wilson J, Bayón M. Millenium Cities: Staging the Origins of Twenty-First Century Socialism. Centro Nacional de Estrategia para el Derecho al Territorio CENEDET [internet]. 2016. [accessed on 2019 Feb 23]. Available on: <https://cenedet.files.wordpress.com/2015/11/cenedet-wp7.pdf>
17. Brown K. Indigenous Waorani win landmark legal case [internet]. 2019 Apr 26 [accessed on 2019 June 8]. Available on: <https://www.aljazeera.com/news/2019/04/indigenous-waorani-win-landmark-legal-case-ecuador-gov-190426221504952>.

[html?fbclid=IwAR3lohMSkGr9-KWf4X6gf8gHx07vs-QDVmjLXF9yADgugYazKnqL0hcRXQfg](https://www.facebook.com/AR3lohMSkGr9-KWf4X6gf8gHx07vs-QDVmjLXF9yADgugYazKnqL0hcRXQfg).

18. Confederación de Nacionalidades Indígenas del Ecuador. La Conaie no Será Parte del Acuerdo Nacional 2030 [internet]. 2019 May 8 [accessed on 2019 June 8]. Available on: <https://conaie.org/2019/05/08/la-conaie-no-sera-parte-del-acuerdo-nacional-2030/>.
19. Brisbois B, Khare N, Johnson L, et al. *Amicus Curiae* Azuay. Ottawa: PHM; 2019.

---

Received on 06/09/2019  
Approved on 12/10/2019  
Conflict of interests: non-existent  
Financial support: non-existent