

# PRIMER FOR A NEW ECOLOGICAL AWARENESS

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## LATIN AMERICAN AGENDA



*Although most people don't know it and many others live as though they didn't know it, there is nothing more important for humanity at this moment than Ecology.*

*Our planet is sick. It has a fever, a digestion problem (acid rain), skin disorders (deforestation, desertification...), dehydration (freshwater crisis) and respiratory ailments (pollution, ozone hole, too much CO<sub>2</sub> in the atmosphere)... and all these problems are getting worse at a surprisingly rapid rate.*

*Since 2007 we have known that it is precisely us, the human race, that is causing this sickness. And we are already aware that the likely outlook – the certain one, if we don't drastically change our lifestyle – is an*

*environmental catastrophe for the whole planet which would mean the extinction of most of the species currently alive, including our own.*

*We must act urgently. But it is still more urgent for us to open our eyes, to look at things differently and understand what is happening. And it is important for all of us to realize and understand, for only if we act together, like a united family, will we be able to save our home and survive.*

*The Latin American Diary, and the popular educationalists that form it, offer you this primer with all their heart, vision and optimism, with the hope that we may all join the other members of humanity who have already set to work.*

# SEEING

## The traditional ecological problem

We have been worried about the ecological problem for decades, in very different areas. The continual expansion of agriculture, to feed a population which over the last century has multiplied by four, together with many other changes in land use, has led us to cut down a large portion of the forest with which the planet breathes. In other areas, intensive farming, the use of chemicals and overgrazing causes soil degradation and infertility. Deserts are advancing around the planet. Fresh water is beginning to be scarce and we already foresee wars over water in the near future. High in the sky, a worrying hole in the ozone layer is leaving us unprotected from ultraviolet cancer-causing radiation. We hear every day of new species in danger of extinction...

These environmental problems are "traditional" in that they are caused by longstanding human practices, but the problem is also recent, for it is only in the last few decades that they have become alarmingly worse.

## An uncomfortable discovery: limits

Human beings long believed that they lived on an infinite Earth: a flat surface with no reachable limits. Less than five centuries ago (1522, Magallanes) it was discovered that the Earth is not flat but closed over itself, spherical and therefore limited. But even so it seemed endless, quasi-infinite. Only at the end of the last century was the uncomfortable discovery made that our careering development could soon hit the planet's limits. This was proclaimed prophetically, solitarily, in the famous 1972 Club of Rome report *The Limits to Growth*, which was not listened to. The prophecy was confirmed and ratified by another report (*Beyond the Limits to Growth*, 1992), which showed that we were in danger of *overshooting*, beyond the planet's capacity to absorb and regenerate

We have been cutting down forests for centuries, but in the last 50 years we have cut down more than in the last 500 years. Now every minute we cut down an area the size of a soccer stadium. The Amazon Basin continues to lose thousands of square kilometres of forest every year. Between August 2008 and May 2009 we deforested 1,084 km<sup>2</sup> in the Amazon. And today we are burning more coal than at any time in the past. Overall we are losing 12,000 km<sup>2</sup> of tropical forest per year, according to the UN; due to excessive or inadequate use, 60,000 km<sup>2</sup> of land is turning into desert every year; we are consuming our natural resources at a rate 30% higher than the planetary biosphere can replace them. All over the world we are expelling other species.

The current rate of species extinction is a hundred times greater than when the human race first appeared on the Earth. A third of the world's amphibians are endangered. And just between 1970 and 2005, biodiversity decreased by 30%.

the resources we consume. This danger became an official reality on 23rd September 2008, which the scientists who monitor the state of the planet, and in particular the *Global Footprint Network*, called Earth Overshoot Day – the day on which we were reckoned to have overshoot the Earth's capacity to regenerate the resources needed to meet human requirements. Now we need more than one Earth to continue subsisting...

The *2009 United Nations Development Programme Report* confirms this and at the same time and with other data shows that if all humanity adopted a lifestyle like that of the US or Europe, we would need 9 planets. We are clearly, beyond any doubt, living in an unsustainable situation, in the short term.

## February 2007: catastrophe in sight

As if this were not enough, in February 2007 many scientists, from many countries, gathered at the UN's initiative in the Intergovernmental Panel on Climate

Change (IPCC), and, following many years of study, concluded 90% certainty that the global warming we have experienced recently, more widely known as

climate change, is the product of human activity.

We are indeed the first species to have become a geological force. We have destroyed the planet's forested skin and are already close to burning up all the reserves of hydrocarbons created by the forests of past geological eras, seriously altering the composition that the atmosphere has maintained during the last 10,000 years.

Despite the claims of sceptics, climate change is here: it is killing more than 300,000 people each year and progressing faster than had seemed. At the rate we are going there will very soon be no glaciers left on the planet. It is calculated that by the summer of 2030 there will be nothing left of the Arctic ice cap. The last time the planet was as hot as it is expected to be in 2050, the sea level was four metres higher than at present. (In 2050, 70% of the people living today will still be alive.) If all of the Earth's ice were

to melt, the sea level would rise 67 metres. This is not science fiction: 20,000 to 35,000 years ago, the planet was covered in an ice up to the equator and the sea was 100 metres lower than today.

Our planet's temperature (fever) is worsening. The year 2008 was one of the most devastating in history. It was also the tenth hottest on record, and the ten hottest years have been in the last 12 years.

The key factor in global warming is the CO<sub>2</sub> accumulated in the atmosphere. If it ever reached 1% of the atmosphere, the surface of our planet would be at boiling point. But there is no need to go so far. If we simply continue every day to release thousands of tons of carbon into the atmosphere, not drastically reducing the current rate, the planet's temperature will rise by 7°C. Scientists agree on this: a rise of more than 2°C would be lethal for most species that live on our planet.

You might think these data would be enough to make humanity take urgent action, united in a common cause. Well we are not! It is as if we were paralysed, unable to respond. It's true that the change we need seems impossible: would we really be able to stop burning oil and petrol, cutting down forests, depleting our water supply, destroying the Earth's surface with huge opencast mines? We are taken aback at this desolating outlook but we face it with the same old approach which led to this state of affairs. Should we not first urgently change our way of looking at reality?

### ***For group discussion***

*– Which are generally the greatest environmental problems? Make a list putting the issues in order of importance and seriousness. What are the problems in our country, our city, our environment...?*

*– Find a graph of the world's population (in Wikipedia, Google, etc.) and draw it. Find the following data: What is the current rate of population growth in the world and in our country? How many more people are there each year in our country and in the world? How long will it take for the population to double? And how long will it take to double the next time? Can the world and its countries continue like this, increasing their population without limit?*

*– Is it true and certain that if we do not change our way of living and consuming, we are headed for catastrophe? Or it is not certain? What are the main changes that scientists are predicting for the Earth? (Polar ice caps, glaciers, desertification, forests, species, temperatures, sea level, etc.) And when our grandchildren have grown up? And is there no hope in all this, or can it be avoided? Why is this not the main subject of debate in our society as it blithely heads for disaster?*

*– Even if we are convinced that we have to change urgently, can we change? Can we stop burning oil, wasting water, polluting the land with chemicals, destroying the landscape and mountains with opencast mines, chucking thousands of tons of carbon into the sky, etc.? Can we change our lifestyle or are we so comfortable in it that we are ready to die for it?*

# JUDGING

## **A new new of looking at the cosmos and nature**

The tremendous progress of science in recent years is giving us a view of the universe quite different to that held by past generations. This new cosmology shows us a radically different conception of the cosmos.

Up to the last century humans believed the Earth was no older than 6,000 years. Now we reckon the universe's age at 13.7 billion years. Even Darwin, a century and a half ago, had doubts about his discoveries on evolution because they involved time periods much longer than then thought possible.

All past generations believed they lived in a world that was still (the Earth, the sun, the galaxy...); now we know that everything is in motion. Just 80 years ago we discovered that the universe is constantly expanding.

The universe is not only expanding but also de-

## **A new way of looking at life**

Today we see life in a way quite different to our ancestors. They taught us that life was "something else", that it could not spring from inert matter. Now science holds that life comes from matter itself, and we already know roughly how and in what conditions the first forms of life came forth. Also scientists believe that even though we know no other one, there must be thousands or millions of planets like ours, full of life, all over the cosmos.

We cannot go on seeing the Earth as an inert flying rock on which life has thumbed a lift. Life did not come from outside, readymade and configured in the species we know today, prefabricated and fixed. Life burst forth from the Earth, germinated from matter, and what we see today is also a marvellous development of its luxuriant foliage, which has taken millions of forms, by trial and error, so as to continue growing

## **A new look at ourselves**

In this new view of the cosmos, matter and life, we are also profoundly changed. We see ourselves differently. We were always told – our parents always thought – that we were distinct, that we were "something else", introduced by God "from above" once the stage was set (and as if the world were a mere stage with no other object than to host our human drama).

Today we know it was not like this. We know we

veloping. Our world did not appear readymade and defined as we know it today. We now know that the cosmos is in a continuous dance in which different phases succeed each other, germinating from each other, developing with a prodigious creativity making possible the appearance of new stages of organization, with emerging properties. Life, including ourselves, is literally stardust, the product of the death and resurrection of evolving stars.

This new way of looking is a revelation for us, showing the cosmos not as an assembly of rocks cast into a vacuum but as a cosmogenesis developing creatively and with increasing complexity. We know that the Earth is not just inert matter or a store of resources to be consumed. We cannot continue to disregard it, to see it as inert, unable to surprise us with its energy and creativity.

in complexity and interiority.

Life's appearance and germination involved highly precise processes in which the slightest deviation would have made it impossible for it to evolve as it has. We now see the web of life no longer as an assemblage of separate beings but as a living community, an hugely complex network with fragile stability and whose selforganisation is continually fuelled by everything in relation with every-thing else, in total systematic interdependence.

Today we know it was not so much the planet's atmosphere that made life possible as life that helped generate the atmosphere that life needed to develop. The planet appears as a highly complex systematic unit, with an immense network of feedbacks with which it regulates itself, like a living being. This is why scientists are calling it *Gaia*.

are truly the sons of this Earth, that we are the last link of evolution, the flower at the top of the tree of life. We are not immortal ideas that have had the misfortune to be debased to matter (Plato), nor were we banished or exiled to this planet. Rather we are the Earth, we are in our natural habitat, in our home, our cradle, because we are the Earth it-self that has evolved over millions of years, unfolding its potential

and creativity. We are humans, animals, nature, life, Earth, selforganized stardust, cosmos... We are 13.7 billion years old and we carry in us the fruit of the evolutionary endeavours of an unfathomable history.

This new view transforms us. It allows us to reinvent human nature as part of a new cosmic story. We now find that we are part of this cosmic dynamic in its constant self-creative unfolding. We are a fruit of the Earth's development. Thinking of ourselves as separate or superior, distinct from the life of the Earth, is an illusion that misrepresents and alienates us.

We also happen to be the latest arrivals in the evolutionary chronicle. Yet we have behaved as merciless predators, shortsightedly looking out only for ourselves, putting everything at our service, blithely

exploiting nature, raping it, taking over 85% of the planet's surface (are we a plague for the planet?), destroying the Earth's lungs and entrails, polluting water and air (are we a cancer for the Earth?), as a truly geological devastating force on a planetary scale... all in contradiction with our own being, as if we were not the Earth, as if we were fulfilled by waging war against it.

We have mixed feelings in these new times, for we find that up to now we have behaved as what we are not, as if we were something else, against the Earth and against ourselves. Thus it is urgent for us to reconcile ourselves with our being, with our body, with the Earth that we are.

### **A rediscovery of inner fire**

Some 200,000 or 300,000 years ago our ancestors experienced a spiritual thrill as they discovered and mastered fire. That mysterious and unruly force fuelled those nomadic peoples' collective consciousness and subconscious and filled their imagination with fables and myths that expressed a renewed reverence for the energising mystery of existence. They sensed that their home was not a mass of rocks and gasses from some senseless explosion. The universe is not a heap of things but a unique, marvellous self-organizing energetic phenomenon, full of sacrality and mystery.

Today we find that matter is not inert, that matter and energy are intrinsically linked, and that void is so much at the heart of both that we cannot predict or determine its presence. We can no longer believe in the divine as separate from its "creation", transcending

profane or inert things. There is no such dichotomy. There is nothing profane, lacking mystery and divinity. There is nothing purely material and inert. All things are pregnant with mystery, energy, sacrality, with unimaginable potential for selforganisation...

There is a profound continuity between void, energy, matter, interiority, life, mind, consciousness, spirit... We are not "something else" as opposed to matter.

We are its inner fire, its deepest selforganised vital dimension. We must once again look at the whole of reality and discover how to capture its mystery, its deep fire. There is nothing profane or inert for those who can see. The whole cosmos is full of reverential love and reenchants itself with sacrality, leading us to experience our spiritual dimension in a new way.

### **For group discussion**

– *"We used to think we knew the cosmos... now we know it is not a cosmos but a cosmogenesis": Comment on the main differences in our new view of the cosmos compared with humanity's view up to now.*

– *People used to think there was a discontinuity between the Earth (inert, dead mineral matter) and life. Today scientists have rediscovered matter as energy, as the fountain and ultimate origin of life. What does this new view entail?*

– *We always used to think we had been put on this Earth, that we were totally distinct beings. Our new view of ourselves tells us that "we are the Earth". What different ways of seeing reality arise from this conviction? Give examples.*

– *If we have caused so much harm to the planet and continue to increase this harm and seem to be unable to stop increasing it, is it true to say that we are a cancer for the planet, and will drown in our own pollution?*

– *What has gone wrong? Where did we make mistakes? Why are we heading for catastrophe, instead of "living well" and helping the planet to be ever more beautiful, more alive and more fecund?*

– *Give examples of our ways of regarding matter, the Earth, animals, etc. which are not inspired by reverence, respect or communion. Is it a disenchanting view of the world, the Earth and life that has made us treat them so badly? How can we reenchant our eyes and discover sacrality, the transparent mystery of everything that surrounds us?*

# ACTING

## **A change of mentality: reconciling ourselves with the Earth**

At this dramatic point in the planet's history, there is nothing more important for its destiny and our own than to change the mindset of our thinking species that has become so powerful – a geological force. Only a change of mindset can get the planet out of trouble. The main change needed is not of hardware but of software, not material but spiri-tual. Only a change of mind, awareness and spirit can bring about the physical and material changes needed.

This change of mindset consists basically of perceiving ourselves and locating ourselves in reality in a different way: we must put an end to the anthropocentrism by which we have seen everything in the light of the individual interests of a predatory species that puts all things at its service for its own comfort, whatever the cost, even by destroying ecosystems, species, landscapes, our habitat, the atmosphere, the future of life...

## **Looking after the Planet**

Our lifestyle – our methods of production and consumption – do not take account of the planet. The planet was supposed to be infinite, allabsorbing, such as we could not imagine ever being worn out, polluted, overheated, losing life and biodiversity, unable to absorb our waste and regenerate itself. But today it is scientifically established that the planet is worn out, showing signs of exhaustion and rapid deterioration. We must act urgently.

The most urgent thing is to cease to ignore the fact, as we have up to now. We must start to include a planetary dimension in everything, i.e. the effects on the planet of our economy, production, consumption, and lifestyle. We must rethink everything on a planetary basis.

## **Eco-political participation**

But being careful individually or as a community will not be enough. In our huge societies it is political decisions that most affect the environment. We must urgently reconstruct the human city (the polis) with a new social contract, but now not merely social but ecobiosocial, not confined to guaranteeing the scope of competing selfish human interests but

We must cast off the value system that has applied since the start of the industrial age – of contempt and insensibility towards nature, using nature for the sole benefit of humans in insatiable economic growth, always on the increase, of profit for profit's sake, with the smallest possible investment in the shortest possible time, totally ignoring the damaging effects on the planet.

We must abandon our autocratic throne of exploitation on which we once sat as the centre of reality, and return to the path of evolution, where the centre is the whole: reality, the cosmos, the planet, life, biodiversity, good living, in harmony and synergy with all nature.

This involves a total revolution: we must abandon our selfish warlike attitude of recent times and return to one of communion with our roots, reconciling ourselves with life and with everything.

And we must consider the planet with affection, with love, because it is our home, the spaceship in which we travel suspended in the cosmos, a unique Noah's Ark in which we will all be saved or all perish; it is unique and there is no replacement.

Our ethics have been anthropocentrist. Now they must necessarily become ethics for the safety of the planet.

Both in the organisation of society and in our daily habits there are a multitude of gestures and opportunities with which to change our lifestyle to benefit the planet: carefully saving water, energy, resources – consuming in an environmentally responsible way in all aspects of our use of the biosphere.

putting the wellbeing of humanity at the centre of everything, as a supreme good to be protected, along with the supreme good of life and the cosmos. In this new approach, human democracy is insufficient; today we need eco-bio-democracy. We are not the owners or the exploiters but just the administrators, the stewards, the elder brothers of the community of life, and

so biocracy is a principle superior to democracy.

This is surely a social contract desired by the species facing extinction, the forests cut down every day, the mountains threatened with opencast mining, the species cornered or even expelled from their habitats, the polluted atmosphere that is becoming unbreath-

able. These cannot vote, but they need aware citizens to vote on their behalf for a political option to realize the dream of a new eco-bio-social planet. We must vote not for those who say it is impossible but for those who undertake to make it possible.

## Degrowth

As is now well known and increasingly evident, the modern lifestyle to which we are used cannot be for everyone and is unsustainable not just in the long or mid term but in the short term – and a truly short one. The planet cannot endure it anymore and we are on the verge of catastrophe, near the point of no return. A few years ago the year 2050 was spoken of as the year of no return. More recently it was said to be 2020. Now Greenpeace is speaking of 2015. What are we waiting for to wake up? The change – the revolution – needed is so great and profound that only with the courage of radicality can we save the planet.

The myth of unlimited growth is over. It is leading us to collective suicide and ecocide. It is more important to live – to survive – than to grow. We do

not need unlimited growth. Such growth is more or less not possible, and is killing us. This is the time for restraint, for self-restraint. This is the time to urgently rethink our lifestyles in a way compatible with the biosphere – in a cooperative way, not a frenetically competitive and accumulative one, as up to now.

We must dare to think so and say so, defying the dominant ethos of profit for profit's sake and unlimited economic growth, indifferent to the environmental costs. We must abandon our excessive claims, abandon our unsustainable lifestyles, and this will not be possible without an element of sacrifice. But this is the way to save the planet and to save ourselves with it.

### **For group discussion**

– Are we convinced that the main change, the most effective one and the only one that will save us, consists of humanity changing its way of seeing and thinking? Is it not true that it is a disregard for nature that has brought about this threat of imminent catastrophe?

– As a group, make a list of the main features of the new ecological mentality that is needed.

– Our lifestyle is “at war with the Planet”. Is this true? In what ways may this be seen?

– In this new outlook we speak today of overcoming our “anthropocentrism”. What does this mean? List features and situations in our traditional approach and conduct that show that we saw as ourselves as “at the centre of reality”. If we are not the centre, how should we relate to other beings? What situations and conducts must we change if we can no longer see ourselves as at the centre?

– If this change of mentality is so urgent, what are the key actions that we must start taking? For our district, our friends, our family... for ourselves?

– There are many ways of looking after the planet. Make a list of 20 ways to look after the planet which are within our reach.

– The animals harmed by our lifestyle and the species in danger of extinction do not have the vote in our “democracy” because they are not considered “citizens”; our democracy does not include them. Should we not transform our democracy into a “biocracy” that includes them as members of the community of universal life to which they belong? They cannot vote to make this dream a reality, but we can vote on their behalf and in their interests. How?

– Humanity has been obsessed for several centuries with economic and material growth, a permanent, constant, unlimited growth... Today, against this “growth” which is leading us to catastrophe, there are new currents of opinion rebelling against this once unquestioned dogma and claiming that what we need today is the contrary: we must bring about a sensible and wellplanned “degrowth”. Some think this is crazy but there are more and more people who see this as a new way of apprehending the world. We could look up “degrowth” on the internet and next time discuss the pros and cons of this new philosophy.

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The text of this Primer is a synthesis of the Latin American Agenda for 2010, intended to show the convincing logic of the ecological argument. It can be obtained through the website [latinoamericana.org/2010/info](http://latinoamericana.org/2010/info)

There you can also get a teaching guide to make this text a basis for a course, work-shop or seminar... at school, in a grass-roots community, a young people's group, a study group or in adult education.