# I ERAM (C)

United Nations Conference on Sustainable Development
Conferência das Nacões Unidas sobre Desenvolvimento Sustentável

RIO+20 | Rio de Janeiro | June 2012

#2 Thursday, June 21, 2012



Social movements, especially trade unions and landless workers, are blasting the "new green economy" proposed at Rio+20. "It is just a fresh coat of paint on the old predatory model," charged unionists at the march of at least 50,000 people Wednesday

along Avenida Brasil in Río de Janeiro.

The focus of discussions was the condemnation of "green capitalism", the commodification of nature, attacks on women's rights, U.S. imperialism and transnational corporations.

The slogan "No One Owns Water"

reflects fears that the green economy will result in widespread privatisation of water resources.

The avenue came alive with banners and bright red caps, in contrast to the green that tinted official government negotiations at Rio+20.

#### LEIA TAMBÉM

page 3

The Other Voices of Rio

page 4

Dilma cobra atitude

dos ricos

page 10

A fome é insustentável

page 11

Will Rio+20 Make a

Difference to Women?

page 13

O valor do capital natural

page 16

Rio+20 Agreement Ignores Scientists' Dire Warnings

#### **IPS WebTV**

with the participation of:

H. E. Nassir Abdulaziz Al-Nasser, President of the United Nations General Assembly

Representative of the Government of Brazil

Omar Resende Peres, President, IPS Television Board

Carlos Tiburcio, Chair, IPS Core Group of Donors

Mario Lubetkin, IPS Director General

René Castro, Minister of Environment, Energy and Telecommunications of Costa Rica



**THURSDAY** 

21st June At 6PM ROOM 3-8 PAVILION 3 RIO CENTRO

## Passeata vermelha contra a economia verde



#### Por Mario Osava

s sindicalistas e o Movimento dos Sem Terra (MST) dominaram a passeata dos povos, cobrindo de vermelho a avenida Rio Branco, no centro do Rio de Janeiro, com pelo menos 50.000 pessoas protestando contra a economia verde.

A Central Única dos Trabalhadores trouxe cerca de 8.000 manifestantes, garantiu sua secretária Nacional de Comunicação, Rosani Bertoti, uma agricultora familiar de Xanxerê, no oeste de Santa Catarina. "Só do estado do Rio de Janeiro vieram 80 ônibus", informou.

Economia verde é só uma pintura, "nada resolve" do que interessa aos trabalhadores, que são o emprego decente, os direitos de negociação coletiva, organização autônoma, salários iguais para homens e mulheres e fim do trabalho escravo, posicionou-se, minimizando críticas de ativistas que acusam a CUT de adesão ao governo.

Um novo ciclo de rapina é o que anuncia

a economia verde e os culpados da destruição ambiental "têm nome e sobrenome", os das multinacionais como Bunge, Monsanto, Shell e Syngenta, discursou João Pedro Stédile, um dos coordenadores do MST. "Desde 1989 uma multidão tão grande não tomara as ruas para dizer basta", sinal de que "o povo começa a caminhar pelas próprias pernas", celebrou.

Divina Rodrigues, de 48 anos e quatro filhos, veio com outros 150 camponeses do Alto do Parnaíba, no oeste de Minas Gerais, onde muitos vivem acampados a vários anos à espera da reforma agrária.

As palavras de ordem e os discursos repetiram a condenação ao "capitalismo verde", à mercantilização da natureza, da vida e das mulheres, ao imperialismo estadounidense e às empresas transnacionais. "A água não tem dono" refletia o temor expresso em vários debates de que a economia verde conduzirá a uma privatização generalizada dos recursos hídricos.

Um grupo saltava gritando "quem não pula é ruralista", protestando contra o agronegócio que quer flexibilizar o Código Florestal, enquanto outro reproduziu um pensamento típico da paranoia militar: "Na Amazônia dos brasileiros não tem espaço para ONG de estrangeiro".

O pedagogo chileno David Órdenes conduziu jovens de vários países latino--americanos que fazem parte do Coletivo da Diversidade Cultural. São meninos e adolescentes mobilizados em defesa dos bens comuns da natureza, da diversidade cultural e biológica ameaçados pelo neoliberalismo, explicou a TerraViva.

Um grupo de 30 ativistas veio de El Salvador trocar experiências com outros países e protestar contra a economia verde que nada mais é que a "reciclagem do capitalismo", segundo Angel Ibarra, que acredita numa "revolução dos povos". A ALBA, Aliança Bolivariana para as Américas, a União Sul-americana de Nações, as lutas indígenas e a defesa da revolução cubana são uma amostra de que o processo caminha, ainda que devagar, argumentou.

Mulheres de vários países africanos, exibindo cartazes dizendo que "A África não está a venda", as Mujeres de la Matria Latinoamricana (MUMALA) da Argentina, que lutam contra todas as violências de gênero e uma representante do movimento camponês paraguaio falando do "luto" no seu país pelo assassinato de pelo menos 18 lavradores, compunham a babel militante da passeata.

Numerosos funcionários públicos, pedindo a valorização do seu trabalho, e grevistas da universidade acentuaram o caráter sindical da marcha, que acrescentou a economia verde, junto ao capitalismo e ao imperialismo como um novo inimigo.





This content has been produced with the financial assistance of the European Union. The content is the sole responsibility of IPS, and can under no circumstances be regarded as reflecting the position of the European Union.

















#### env**olv**erde



TerraViva is an independent publication of IPS-Inter Press Service news agency. The opinions expressed in TerraViva do not necessarily reflect the editorial views of IPS or the official position of any of its sponsors or partners

#### Publisher

Mario Lubetkin

#### Managing Editor

Katherine Stapp (English)

#### Adalberto Marcondes (Português) **Brazilian Correspondent**

#### **Environment Correspondent** Stephen Leahy

#### Reporters Busani Bafana

Claudia Ciobanu Zofeen Ebrahim Isaiah Esipisu Fabiana Frayssinet Clarinha Glock Fabíola Ortiz

Amantha Perera

#### Aprille Muscara

Art Cristina Pozzobon (Editor) Rosana Pozzobon

Cartoons

**Editorial Assistant** Ana Libisch

© 2012 IPS-Inter Press Service

ips.org/TV/rio20/ rio20@ipsnews.net @ipsenvironment facebook.com/ipsenvironment www.ipsnews.net

# The Other Voices of Rio+20

**▶** By Fabiana Frayssinet



#### The Widows of Rio

Amid the vibrant colours of a multiethnic demonstration, one group of women stands out with their black dresses and dark glasses. They weep inconsolably over a closed coffin. Who died? "Environmental policy," they answer in unison.

The women are Brazilian government employees who decided to use black humour to condemn what they consider to be not merely a death, but a violent murder. "The killer was economic power, that formula for development that Brazil and other countries apply at the cost of the environment, and which has destroyed environmental policies, traditional communities, forests and artisanal fishing," they declared.

#### A War Cry Against the Merchants of Nature

The grey city streets and a few sparse trees contrast dramatically with the colourful traditional clothing, feathered headdresses and face and body paint of a group of indigenous people from the northern Brazilian state of Acre. But if the destruction of their home, the Amazon rainforest, is not halted, it will not be long before this desolate urban landscape takes over their own lands.

"The Brazilian government wants to sell our nature and our lands, our forest. It is causing the disappearance of the rivers, the animals, and the people of the rainforest," indigenous leader Jaminawá Junikuin told TerraViva.



#### The Race of the Xavante People

A group of 20 Xavante indigenous men, running in the opposite direction from the marchers and carrying logs, frightened a few unsuspecting city dwellers. But much greater is the fear of these natives of the western state of Mato Grosso as they watch their forests disappearing at a faster pace than their traditional "log races".

An elder from the village of Marãiwatsédé, Luis Tserewamriwe Tserenhitomo, told TerraViva that large landowners are "stealing our lands."

Francisco Tserewamriwe Tserenhitomo, a younger Xavante, explained that the landowners have brought diseases to their communities, and are planting soybeans where they used to plant corn and other subsistence crops.





#### A Tank That Wages War on Hunger

A tank covered in bread advances menacingly among the protestors. But its gun is aimed at a noble target: ending world hunger.

The "bread tank" is an edible, mobile sculpture created by the non-governmental World Future Council to back its Disarmament for Sustainable Development campaign. It was presented to the press in the Rio de Janeiro favela of Santa Marta on Jun. 19, and then accompanied the Global Day of Action March in Rio to highlight the need to invest in food instead of weapons.

## Dilma Rousseff critica países ricos

#### Por Fabíola Ortiz

No primeiro dia da Rio+20 com a participação dos chefes de Estado e de Governos a presidenta do Brasil Dilma Rousseff defendeu o princípio de responsabilidades comuns, porém diferenciadas entre países ricos e em desenvolvimento.

Rousseff discursou na cerimônia de abertura no Riocentro e criticou a retirada da proposta de criação de um fundo de U\$S 30 bilhões para financiar a transição dos países para uma

"A transferência das indústrias poluentes do norte para o sul do mundo, deixou uma conta pesada socioambiental para o mundo em desenvolvimento. A proposta do fundo para mitigar as ações ainda não se materializou nos níveis prometidos e necessários a apesar do esforço de algumas nações", declarou.

A versão final do documento 'O Futuro que Queremos' deixa de fora o fundo proposto pelo G77 e não define metas tangíveis de desenvolvimento sustentável para substituir as Metas do Milênio que expiram em 2015.

"Nesse momento, o mundo atravessa os efeitos da mais grave crise econômica e financeira mundial. As importantes economias registram crescimento muito lento ou estão em retrocesso e sofrem cortes nas suas contas públicas. A disposição política para acordos vinculantes ficou muito fragilizada. Não podemos deixar isso acontecer. Essa conferência é prova de que deve ser grande nossa vontade de acordar", declarou Rousseff.

Ainda que as Metas de Desenvolvimento Sustentáveis - conhecidas como SDGs na sigla em inglês, Sustainable Development Goals - não tenham sido definidas, a versão final do documento da Rio+20 conseguiu tracar o "mapa do caminho" para levar a definição dos SDGs, avaliaram os negociadores da delegação brasileira.

"Precisamos de uma nova visão futura para consolidar as metas de desenvolvimento sustentavel..., a melhor resposta para a mudança do clima. Isso demanda um maior esforço e comprometimento dos



países ricos para o esforço global. O custo da inação será maior que as medidas necessárias", argumentou a presidente

A Rio+20 deve gerar objetivos firmes, avaliou a presidente. A erradicação da pobreza no mundo se tornou o "maior desafio global" que

O texto final da Rio+20 aprovado representa um consenso e foi resultado de um "grande esforço" brasileiro de conciliação.

O ministro das Relações Exteriores, Antônio Patriota, avaliou o consenso alcançado pelos negociadores como uma "vitória do novo multilateralismo".

O fortalecimento do Programa das Nações Unidas para o Meio Ambiente (PNUMA) e a sua elevação a um status de agência da ONU, um dos pontos de discórdia entre os países, é mencionado na versão final mas sem definição que tipo de upgrade terá.

Dentre as recomendações, a composição do conselho executivo do PNUMA passará a ser universal e não terá apenas 52 membros como atualmente. O orcamento também deverá ser aumentado.

# INVEPAR GROUP.

Invepar is a group strongly committed to the development of Brazil and one of the main companies of the transportation infrastructure sector. It handles, among other companies, the administration of MetrôRio and Linha Amarela (Yellow Line). Its activities aim at providing mobility services and its values are socio-environmental responsibility and entrepreneurship. And as it is a company with vision that goes beyond its area of operation, Invepar sponsors Rio+20.





















# Banks Pledge 175 Billion for Clean Public Transport

#### ▶ By Amantha Perera

Even before the U.N. Conference on Sustainable Development opened here, one effect of the summit was already reverberating through the streets of Rio.

As some 50,000 delegates, activists and others tried to get to various meetings and events, at many locations, like along the famous Copacabana beachfront, traffic slowed to a snail's pace. Even government officials travelling to the opening of the conference complained of the traffic on social media.

Experts here say that Rio's summit-related traffic woes are yet another example of decades of planning that prioritised cars over efficient public transport networks.

This mentality has propelled the transport sector to be the fastest-growing source of greenhouse gas emissions. The combined cost of congestion, air pollution, road accidents and transport-related climate change could be as high five to 10 percent of GDP per year.

"It is everywhere. We see it at home, we see it when we travel, and we see it in Rio," Michael Replogle, global policy director and founder of the Institute for Transportation and Development Policy (ITDP), a U.S.-based organisation that promotes sustainable transport systems, told Terra Viva.

To address this problem, eight of the world's leading development banks, including the World Bank and the Asian Development Bank, have pledged 175 billion dollars in loans and grants for sustainable public transport systems to cut down on congestion and emissions over the next decade.

"It signals a shift in the priorities (of the banks) towards supporting sustainable public transport networks," Replogle said.

Cornie Huizenga, convener of the Partnership on Sustainable Low Carbon Transport, told TerraViva that organisations promoting sustainable transport had lobbied hard in Rio to get the topic into the Rio declaration. Now that it has been included, they also got 18 voluntary commitments to improve sustainable transport systems.

"The next step was the money, that is where the banks came in. Now this funding will be available for countries who want to invest in sustainable public transport systems," Huizenga said.

Both experts agreed that Asian and Latin American countries would have to take the lead in shifting to sustainable public transport systems for the move to have a significant global impact.

In the next two decades, half a billion people will be added to the urban populations in India and China. Proper planning of urban transport systems is vital to avoid this explosive growth, which will only add to congestion and emissions, they warned.

Replogle said that there were already signs that some Asian countries like India and China had realised the importance of an efficient public transport system.

U.N. officials said that the new commitments were likely to help poorer countries with scarce resources to at least try to make the shift.

"These unprecedented commitments have the promise to save hundreds of thousands of lives by cleaning the air and making roads safer, cutting congestion in hundreds of cities. They will create more efficient passenger and freight transportation, spurring sustainable urban economic growth," said Joan Clos, executive director of UN-HABITAT, announcing the commitments.





#### **ALERTNET CLIMATE**

Get all the latest news at Rio+20
- and beyond - on AlertNet
Climate, the Thomson Reuters
Foundation's daily news website
on climate, development and
sustainability issues:
www.trust.org/alertnet/climate-change

Want the stories in local languages? Turn to our AlertNet Climate in Translation Facebook site, or get audio versions at AlertNet Climate on Audioboo. Or follow us on Twitter: @alertnetclimate



terraviva 2012

# If Rio+20 Fails, We All Lose, Says GA President

#### ▶ By Thalif Deen

The president of the U.N.'s highest policy-making body is one of the strongest advocates of the Rio+20 summit – and is determined to work towards its eventual success.

"Since the beginning of my presidency," General Assembly President Nassir Abdulaziz Al-Nasser told TerraViva, "I have continued to advocate the importance of Rio+20 in meetings and bilateral discussions with world leaders and important partners, at the seat of the U.N. General Assembly in New York and during my travels aimed at overcoming differences and bridging the remaining gaps."

He said Rio+20 is about setting the world on the right course for sustainable development for future generations, particularly addressing the challenges of poverty and environmental degradation.

"If Rio+20 fails, we all lose," he warned.

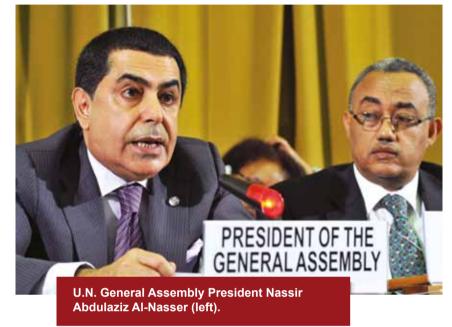
But he cautioned that the adoption of the blueprint for sustainable development, "The Future We Want", does not end Friday when world leaders pack up their bags and head home.

"The real work," he told TerraViva, "commences after the conference is over as we come together in the General Assembly to articulate concrete action on key areas of concern and importance.

"Of particular importance is that there should a listing of the commitments made by all stakeholders in the outcome of Rio+20 with clear modalities and a time frame for implementation."

Genuine political will and a sense of global solidarity have the power to bring convergence of intergovernmental positions.

"As you know, personally, I am a born optimist. I have learned over the years of my multilateral diplomatic experience that one has to be optimistic when you are working with 193



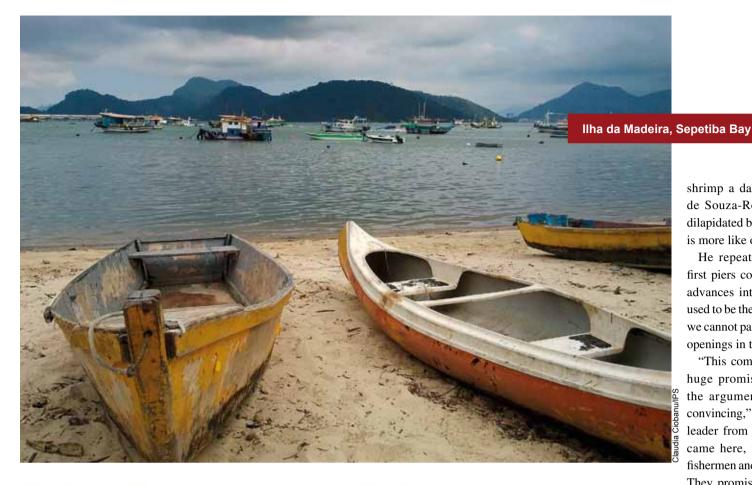
 $sovereign\,member\,states, "Al-Nasser\,added.$ 

Addressing world leaders June 20, he reminded them that in 1992, Rio was the birthplace of not only Agenda 21, but of the three influential Rio Conventions: on climate

change, biodiversity and desertification.

"I would urge member states to realise their important commitments made in the Agenda and these conventions," he told TerraViva.





## Rio Reveals Big Capital's Two Faces

#### ► Claudia Ciobanu\*

A trip to Sepetiba Bay in western Rio de Janeiro might give a better sense of the relationship between business and local communities than the official programme of the Rio+20 conference.

The many corporate representatives in attendance at the summit are working hard to depict themselves as part of the solution - to climate change, food security, the energy crisis, and others - rather than a source of the problem.

Yet moving westwards from Rio Centro also brings an erosion of the message so often heard here that businesses and local communities can and should happily work together to find sustainable solutions for the world's crises.

Western Rio is the location of Sepetiba Bay, whose ecosystem and surrounding areas make it one of the richest biodiversity hotspots in the world. In 1986, the beach region close to the bay was given protected status by Brazilian authorities. The area is also renowned for its diverse cultural heritage, including the trade of artisanal fishery kept alive until today by thousands of local families.

At Ilha da Madeira, one entry point into the Sepetiba Bay, the water is filled with small colourful boats, a few out on the water, many left abandoned, a couple up for sale in spite of their advanced state of decay. Looking toward the horizon gives

The main target for locals' complaints is TKCSA: they operate the first and biggest pier constructed there, and the company's nearby steel plant has been blamed for causing severe air pollution in western Rio

a hint of why some of the boats have been laid to rest: a huge, almost onekilometre-long pier dominates the view, making it difficult for the small boats to pass through.

The pier is the most recent infrastructure project constructed to handle exports of steel and ore from Brazil to resource-hungry countries in Europe and Asia. The bay now hosts five ports for international trade, the biggest of them serving the ThyssenKrupp Companhia Siderurgica do Atlantico (TKCSA), owned 73 percent by German steel giant ThyssenGrupp with the rest of the stakes held by Brazilian Vale.

For the fishermen in Sepetiba Bay, the piers are the problem. And the main target for locals' complaints is TKCSA: they operate the first and biggest pier constructed there, and the company's nearby steel plant has been blamed for causing severe air pollution in western Rio.

"Before the company came here, we could bring home even 60 pounds of

shrimp a day," says fisherman Sergio de Souza-Rodriguez, as he steers his dilapidated boat out into the bay. "Now it is more like one pound per day."

He repeatedly motions towards the first piers coming into sight as the boat advances into the open waters: "These used to be the best places for fishing. Now we cannot pass with our boats through the openings in the piers. It's dangerous."

"This company came to the bay with huge promises, offering us jobs, and the argument of jobs is always very convincing," says Isac Alvez, a fishermen leader from Sepetiba Bay. "When they came here, we were more than 8,000 fishermen and now we are less than 1,000. They promised to create 2,500 jobs but instead their coming meant the loss of 7,000 fishing jobs."

The fishermen also complain about the pollution being released into the bay by the industrial operations: digging underwater to construct the piers has disturbed toxic waste residues lying there following repeated spills from another industrial operation in the region, of Inga Mercantil.

As de Souza Rodriguez's creaking boat makes its way alongside huge vessels taking steel and ore abroad, the fishermen's vulnerability in the face of the pressures of international trade seems overpowering.

Asked what they want, some fishermen name better boats once promised by the authorities and financial compensation, seemingly accepting their fate.

But others are ready to fight on: Ivo Siquera Soares, one of the fishermen leaders, laughs, saying, "We will not sit and watch this boat pass" - rebelliously reverting a Portuguese phrase that signals powerlessness (estamos vendo a barca passar).

\*The reporter visited Sepetiba Bay as a part of Rio Toxico, a series of tours around polluted areas in Rio de Janeiro organised by NGOs monitoring the Brazilian Development Bank and corporations active in Brazil.

# Q&A: Time to Stand with Farmers

# Sabina Zaccaro interviews CARLOS SERÉ of the International Fund for Agricultural Development (IFAD)

Over the centuries, smallholders have learned to adjust to environmental changes and climate variability. But the climate is now changing too fast and intensely for farmers' capacity to adapt.

"These farmers cannot be left alone," Carlos Seré, IFAD's chief development strategist, told TerraViva in an interview.

Excerpts from the interview follow.

#### Q: How is climate change multiplying the risks for agriculture and for farmers?

A: Over the years agriculture has been evolving with the climate, with population increase, with the changes in consumption. But the variability and unpredictability of climate change effects are now overturning broadly adopted approaches to cultivation and the 'natural' evolution is not fast enough to go along with the change in the climate.

As rainfall becomes more erratic, for example, varieties once productive in a certain micro-climate may no longer be. These things are making agriculture riskier with implications for farmers but also for consumers in the rest of the world.

Q: For farmers, one of the most difficult impacts of climate change is

the loss of predictability. What kind of help could make them be more productive and climate smart?

A: Planting schedules handed down by generations are no longer valid and farmers can no longer rely on historical averages of rainfall and temperatures. In addition to traditional risks, smallholders now face new threats, such as sea-level rise and the effect of melting glaciers on water supply.

It is not just one intervention which is going to help farmers. First, they need public policy support, and this relates to the rule of law, a functioning



Planting schedules handed down by generations are no longer valid, says Carlos Seré



jurisdiction and a functioning marketing. But then they also need effective infrastructure, access to the market, and timely information. And they do need functioning services.

#### Q: Where should this support come from?

**A:** In the past we used to think that all these services have to be provided by government. Nowadays we see that a lot of these roles can be provided by the private sector, which anyway has to be adequately monitored by governments.

IFAD has also recently initiated the Adaptation for Smallholder Agriculture Programme, which will help channel finance into climate-smart, sustainable investments in poor smallholder communities. It aims to help eight million smallholders become more resilient to climate change by 2020.

#### Q: What does Rio+20 mean for smallholder farmers?

A: Rio is very ambitious in terms of sustainable development making sure we really address – as we tried to 20 years ago – those economic, social and environmental dimensions (of development). Clearly agriculture is absolutely central to that.

But this is not mainstreamed in the discussion. If you look at the draft outcome documents, there hasn't been an enormous amount of appetite to put agriculture in there and I think that is one of our challenges. One of our major goals is to make sure that agriculture, and particularly smallholder farmers, that their dimension is not lost in the Rio process.

The full version of this interview can be read at http://www.ips.org/TV/rio20/.

## In Africa, Renewables Light Up the Darkness

#### **▶** By Julio Godoy

Mammoth summits such as Rio+20 can easily degenerate into confections of hot air, settings for useless sing-alongs.

But they may also serve as display windows for small projects already improving people's daily lives somewhere on our blue planet.

This the case for several projects using renewable energy sources in East Africa, which are allowing people in small communities to replace their unhealthy paraffin lamps, avoid accidents, and sparing them inefficient, time-intensive methods to recharge their cellular phones.

In Uganda and Kenya, one person has been deeply involved – a Brazilian systems engineer who migrated to Eastern Africa 15 years ago, only to realise that what he had learnt at home was useless on the other side of the world.

"I realised very soon that I had to adapt my knowledge to local conditions if I wanted to be of any help there, and that what people needed there were not efficient logistics, but renewable energy," Izael Pereira da Silva, deputy vice-chancellor for academic affairs at the University of Strathmore in Nairobi, Kenya, told TerraViva.

Apart from his academic responsibilities, Pereira da Silva is a creative development agent, who has made the introduction and expansion of renewable energy sources in East Africa his life's work.

These days, he has returned to his native country to participate in the U.N. conference on sustainable development, and show that Africa needn't be the "dark" continent.

"When you fly over Africa overnight, you don't see light," he said. "There are some bright spots, in South Africa. But otherwise, the continent is dark. This can be changed very easily, generate enormous amounts of electricity using only renewable energy sources, with zero or very low carbon emissions," he added.

Pereira da Silva said that the Congo River alone has the capacity to generate some 150,000 gigawatts, using several, small hydroelectric plants, thus avoiding the highly inefficient, giant dams of the dreadful Mobutu-Sese-Seko era. Such capacity would be enough





to provide electricity for the whole continent.

"But the African countries must interconnect and upgrade their national grids, to diversify their energy sources, using hydroelectric power, sun, wind, and bio-energy," he said. "That way, the continent would not be dependent on one source, to eliminate the risk of large-scale failures."

The Brazilian engineer said that, "In 15 years in Africa, I had almost never seen a

whole day without sun. The continent must use this source – the solar energy technology, both photovoltaic and solar thermic, is ripe."

Pereira da Silva mentioned the Desertec project, which aims at installing large solar-thermic plants in the Maghreb and North African countries, to meet all the regional electricity demands, and still export a substantial share to Europe.

"Such plants can also be installed all over

Apart from
his academic
responsibilities, Izael
Pereira da Silva is a
creative development
agent, who has made
the introduction
and expansion of
renewable energy
sources in East Africa
his life's work

Africa," he said. "Wind turbine parks too."

But before dreaming of a bright future for the whole of Africa, Pereira da Silva started small-scale. "People in Uganda and Kenya use small paraffin and kerosene lanterns to light their homes, when they could be using sun-driven lamps," he said.

These lamps are indeed unhealthy, inefficient, and extremely expensive.

According to the World Health Organization, there are over 300,000 deaths every year from burns caused by such lanterns. Millions die of cancer and other diseases caused by the fumes the lanterns emit.

Furthermore, poor people burn some 17 billion dollars in kerosene and paraffin each year in lanterns to light their homes.

"To replace such lanterns, we distributed to some communities in Uganda small solar panels, of two watts capacity," Pereira da Silva said. "They are enough to light a home for five hours, and still have enough capacity to charge a cellular phone."

Without such solar panels, the users would have to walk to the next town, connect there their cellular phones to the grid, and wait hours until the devices were recharged.

Pereira da Silva also helped to conceive sun-driven ovens, for cooking. "We also distributed 500,000 energy-saving bulbs, to save electricity and reduce the failures of the grid. The bulbs cost 1.6 million U.S. dollars," Pereira da Silva said.

"The bulbs served to save 30 gigawatts – in 28 hours, the investment had been paid by the savings."

Pereira said that for such projects to be successful, it is necessary to involve government authorities, the private sector, research entities such as engineering faculties, and local communities. "The tripod made up of state, enterprises and academia help to light ordinary people's lives," he said.

# Além da Rio + 20; juntos por um futuro sustentable

#### Por José Graziano da Silva\*

A s declarações finais da Conferência das Nações Unidas sobre Meio Ambiente Humano de 1972 e a ECO-92 puseram o ser humano no centro do desenvolvimento sustentável.

No entanto, até hoje, mais de 900 milhões de pessoas ainda passam fome.

Populações pobres pelo mundo afora, especialmente nas áreas rurais, são as mais atingidas pela crise de comida, climática, financeira, econômica, social e energética que o mundo enfrenta hoje.

Não podemos falar em desenvolvimento sustentável enquanto aproximadamente uma em cada sete pessoas – crianças, mulheres e homens – ficam para trás, vítimas de desnutrição. Seria uma contradição em termos.

A Fome e a pobreza extrema também excluem a possibilidade de um verdadeiro desenvolvimento sustentável porque os miseráveis precisam usar os recursos naturais disponíveis para conseguirem comida. Para eles, suprir suas necessidades básicas é a principal primordial de cada dia – planejar para o futuro é um luxo que eles não têm.

Paradoxalmente, mais de 70 por cento das pessoas que passam fome no mundo dependem diretamente da agricultura, caça e pesca para sobreviver. Portanto, suas escolhas diárias ajudam a determinar como os recursos naturais do mundo são administrados.

Não podemos esperar que o agricultor pobre não corte uma árvore se essa é sua única fonte de energia; não podemos pedir para o pescador artesanal deixar de pescar durante o período do defeso se essa é a única maneira de alimentar sua família.

A fome coloca em movimento um ciclo vicioso que reduz a produtividade, aprofunda a pobreza, desacelera o desenvolvimento econômico, promove a degradação dos recursos e a violência.

A fome e a disputa por recursos naturais são fatores de conflitos que, mesmo quando são internos, tem impactos que freqüentemente ultrapassam as fronteiras dos países. Então, há também uma ligação direta entre a segurança alimentar e segurança nacional e regional.

A busca da segurança alimentar pode ser o fio condutor que liga os diferentes desafios que o mundo enfrenta e ajudar a construir um futuro mais sustentável.

Na Conferência das Nações Unidas para o Desenvolvimento Sustentável, a Rio + 20, temos uma oportunidade de ouro para explorar a convergência entre as agendas da segurança alimentar e a sustentabilidade para assegurar que isso aconteça.

Ambos requerem mudanças para modelos de produção e consumo mais sustentáveis.

Para alimentar uma população mundial que superará a marca de nove bilhões de pessoas em 2050, a FAO prevê a necessidade de aumentar a produção agrícola em pelo menos 60 por cento. Para isso, precisamos produzir mais alimentos ao mesmo tempo em que conservamos o meio ambiente.

Mas mesmo com práticas mais sustentáveis, a pressão sobre nossos recursos naturais será extrema. Então, também temos que mudar a maneira que nos alimentamos, adotando dietas mais saudáveis e reduzindo o desperdício e perda de alimentos: todo ano, entre a colheita e o consumo, jogamos fora 1,3 bilhão de toneladas de alimentos.

No entanto, mesmo se aumentarmos a produção agrícola em 60 por cento até 2050, o mundo ainda terá 300 milhões de pessoas com fome daqui a quatro décadas porque, como as centenas de milhões de subnutridos hoje, eles continuarão sem os meios para ter acesso à comida que necessitam.

Para eles, a segurança alimentar não é um problema de produção insuficiente, é uma questão de acesso inadequado.



"Nós sabemos como acabar com a fome e gerenciar os recursos do planeta de uma forma mais sustentável."

Para tirar esses milhões de pessoas da insegurança alimentar precisamos investir na criação de melhores empregos, pagar melhores salários, dar-lhes maior acesso a ativos produtivos – especialmente terra e água - e distribuindo renda de forma mais justa e equitativa.

Precisamos trazê-los para dentro da sociedade, complementando o apoio aos pequenos agricultores com oportunidades de geração de renda, com o fortalecimento das redes de proteção social, mutirões de trabalho e programas de transferência de renda, que contribuam ao fortalecimento de circuitos locais de produção e consumo para dinamizar as economias locais.

A transição para um futuro sustentável também exige mudanças fundamentais no sistema de governança de alimentos e agricultura e uma partilha equitativa dos custos de transição e benefícios.

No passado, os mais pobres pagaram uma parcela maior dos custos de transição e receberam uma cota menor de benefícios. Este é um equilíbrio inaceitável e que precisa mudar.

Erradicar a fome e melhorar a nutrição humana, criando sistemas sustentáveis de produção e consumo de alimentos, e construir uma governança mais inclusiva e eficaz dos sistemas agrícolas e alimentares são cruciais para alcançar um mundo sustentável

Na Rio+20, estamos numa encruzilhada. De um lado está o caminho para a degradação ambiental e o sofrimento humano; do outro está o futuro que todos queremos. A Rio+20 oferece uma oportunidade histórica que não podemos dar ao luxo de perder.

Nós sabemos como acabar com a fome e gerenciar os recursos do planeta de uma forma mais sustentável. Mas precisamos de uma vontade política mais forte para fazê-lo.

Devemos olhar para Rio +20 como o início de um caminho e não como o ponto de chegada. E essa é uma caminhada que não podemos fazer sozinhos.

Como a luta contra a fome, o desenvolvimento sustentável é uma meta a que cada um de nós deve contribuir - cidadãos, empresas, governos, movimentos sociais, ONGs e organismos regionais e internacionais. Juntos, trabalhando a partir do nível local ao nível global, podemos construir o futuro que queremos. E esse futuro precisa começar hoje.

\*José Graziano da Silva é diretor geral da Organização das Nações Unidas para a Alimentação e Agricultura (FAO). Publicado originalmente no jornal Valor Económico

# Will Rio + 20 Make a Difference to Women?

#### ▶ By Zofeen Ebrahim

Rio what?" asks Saba Khan, 25, married and the mother of two young daughters, only able to catch the first part of the name of the city where the summit on sustainable development is taking place.

Having studied until tenth grade, Khan, who works as a housemaid in the posh Clifton area of Karachi, Pakistan, has no idea where Rio de Janeiro is or why world leaders are meeting there.

But her excitement and optimism cannot be quelled when she finds out that there will be many women participating in the Jun. 20-22 conference, women who have actually made a difference to the world.

"When women with brains get together, something great is bound to happen," Khan says with conviction.

"They will come up with solutions for us," she says. "A woman leader, who is also a mother, will understand how difficult it is to leave a sick child and come to work - not a man.

"In fact, half our problems can be solved if women become leaders," she adds, and asks a little diffidently: "But will they (men) let women talk?"

Women did talk at Rio+20, but whether their voices were heard is another question.

Uzma Tahir of ActionAid-Pakistan said the original draft outcome document was neither south-friendly, nor youth-friendly.

"It's not even women-friendly or people-centred!" she added.

Two decades ago, change was in the air. In 1991, U.S. congresswoman Bella Abzug and the Nobel laureate Wangari Maathai formed the Women's Environment and Development Organisation (WEDO), a movement to



Pakistan is not an easy place for anyone these days to live in, but it is particularly hard for women

influence Earth Summit discussions the following year.

In the world women's congress they organised, they came up with the Women's Action Agenda 21, a document calling for women's rights in areas of governance, environment, land rights, food security and reproductive health. This powerful document helped get gender equality into both Rio's Agenda 21 outcome document and the Rio Declaration.

While the days of optimism have faded for many attending the summit, even before it officially ends Friday, Suzanne Maxx, a participant who was at Rio 20 years ago and found it "an extraordinary journey" then "full of hope", she has not given up any of her idealism.

"The hope may have diminished somewhat, as we are moving in a trajectory towards destruction, but I hold the light; that is why I am here. That is my call," she said.

Two decades ago. change was in the air. In 1991, U.S. congresswoman Bella Abzua and the Nobel laureate Wangari Maathai formed the Women's Environment and Development Organisation (WEDO), a movement to influence Earth Summit discussions the following year

Perhaps it is time to also listen to women like Khan, who say there is something else that needs to be done – a change in men's attitude in general.

"It's men who deny education to their daughters or stop them from seeking a job. They have this misplaced concept of their honour getting sullied if women step out of their homes," says Khan with exasperation.

Faced with a double burden, Pakistani women are disproportionately affected by forced joblessness, low wages if they do work, and almost no public services. At the same time, they are still expected to perform all the chores at home, where violence is part and parcel of a married life and legislation against discrimination put on the back-burner.

Indeed, Pakistan is not an easy place for anyone these days to live in, but it is particularly hard for women. But then neither is the United States, as Maxx will tell you.

"As an entrepreneur, I can tell you the capital available to men to start a business with is not available to women," she said, adding, "It's a global systemic problem where women are not on an equal footing when it comes to having choice to good health, equal opportunities, education or wages."

## Why Inclusive Green Growth Can Sustain Recent Gains in Latin America

#### ▶ By Hasan Tuluy \*

Economic and social development has emerged as the twin pillars of Latin America's strategy to create a more equitable, modern society.

After decades of struggling to find the right balance between growth and equality, the region has leaped forward, lifting more than 73 million out of poverty while increasing wealth, posting growth rates of four percent on average and becoming a source of stability in the midst of global uncertainty.

These tremendous gains, however, could be at risk if they are not made environmentally sustainable. To do so the region is grappling with the tradeoffs resulting from the need for continued growth to fight poverty and preserving natural resources for the productive use of future generations.

This is the essence of the inclusive green growth agenda.

Latin America and the Caribbean region (LAC) could become a victim of its own economic success. The region's bonanza of recent years has led to explosive urbanisation, the world's fastest growing motorisation rates, and a shifting energy matrix away from its cleaner hydro-power base.

LAC's economic success is intimately tied to the generosity of nature. Over 97 percent of the region's gross domestic product is produced in countries that are net exporters of commodities - oil, minerals, and agricultural products.

These resources could be significantly depleted

in less than a generation if current rates of extraction continue unabated or if smarter farming techniques are not applied.

The good news is that the region stands at the forefront of some of the most innovative green practices in the world. It currently boasts the lowest carbon energy matrix of the developing world, the world's most extensive Bus Rapid Transit system, and the first catastrophic risk insurance facility to enhance resilience against natural disasters.

It also has adopted payment schemes for preserving the environment, the likes of which helped turn Costa Rica into a global environmental icon and a paradise for eco-tourism after being the worst deforester in the region back in the mid 1990s.

Through its Amazon Region Protected Areas programme that covers an area the size of France, Brazil has achieved a four-year decline in deforestation rates.

At the urban level, Rio de Janeiro, host of next week's Rio+20 United Nations Conference on Sustainable Development, is one of the region's green leaders. The city is among the first in the world to implement a greenhouse gas emissions monitoring system.

It offers residents the second longest bicycle path in Latin America after Bogota. And through improvements to its suburban rail system, ridership has risen to levels that made subsidies unnecessary - a savings of 121 million dollars per year.

The challenge now will be to maintain and expand

these and other initiatives as LAC becomes more urbanised, its growing middle class aspires to a better life, and exposure to natural disasters increases.

That is what makes these times so critical. The region has the opportunity to choose a path that can lead to robust growth without locking it into an unsustainable development pattern.

Choices made now will define the future for decades to come in key areas such as infrastructure, energy and urban services, all of which are drivers of economic growth and define the quality of life for most of the people in the region who live in cities.

The region has a real opportunity to become a leader in adopting more efficient and climate-smart agricultural practices, as well as more efficient and greener modes of transportation of goods, such as railways and waterways, which are currently greatly underused.

Some may argue that pushing the South to adopt more responsible growth policies is unfair. After all, the rich world gave little thought to the environment as it created unprecedented levels of wealth, health and security

Today, the United States is responsible for 18 metric tonnes of CO2 emissions per capita and Europe for 7.8 metric tonnes. The average Latin American emits the equivalent of 2.8 metric tonnes.

Still, I am convinced that regional leaders are far less concerned with pointing fingers than with making the right decisions today that will set the region and its peoples on a course for continued, sustainable prosperity.

\* Hasan Tuluy is World Bank Vice President for Latin America and the Caribbean



From Rio+20 to Milan 2015



EXPO 2015 Official Global Partner











# Setor financeiro abre as portas para o capital natural

#### Por Fabiana Frayssinet

Diretores do setor financeiro de todo o mundo assumiram o compromisso de incorporar o conceito do "capital natural" em seus produtos e serviços, para defender um patrimônio que, segundo interpretam, tem que ter um preço para impedir maior devastação.

A Declaração do Capital Natural foi assinada por 37 máximos representantes de instituições bancárias, de seguros e de investimentos de 13 países, durante o Fórum Corporativo Sustentável, promovido pelas Nações Unidas como uma das atividades paralelas à Rio+20.

A declaração sobre o capital natural é promovida pela Fundação Getulio Vargas (FGV), pela Iniciativa Financeira do Programa das Nações Unidas para o Meio Ambiente e pela Global Canopy Programme.

O objetivo é entender e fazer entender que "ativos" como a água, o ar, o solo e as florestas são um "capital fundamental", e como eles afetam os negócios das empresas, explicou à TerraViva Roberta Simonetti, coordenadora do Programa de Financiamento Sustentável da FGV.

Em uma segunda instância as instituições se propõem a implantar uma metodologia para incorporar estes ativos nos produtos e serviços. Depois será preciso estabelecer como refletir o impacto nos informes de risco e, finalmente, como contabilizá-lo, detalhou.

Simonetti recordou que o termo "capital natural" foi "emprestado" do mundo econômico, afirmando que, da mesma forma que um investidor quer preservar seu patrimônio e viver do ganho que este lhe gera, o desafio é não depredar recursos naturais para obter um benefício disso.

"O que propomos é construir coletivamente uma metodologia que ainda não foi criada. Contudo, ao aderir à declaração reconheço a importância do capital natural, reconheço que tentarei entender os riscos, como me impactam, como informá-lo e como calculálo", resumiu Simonetti.

Simonetti destacou que há empresas que já avaliam ecologicamente seus negócios, por seu próprio interesse empresarial.

"O ideal seria que todos fôssemos



altruístas, que reconhecêssemos que estamos usando mais do que devemos, dilapidando o patrimônio do planeta, que aceitássemos que não queremos aumentar a produção". Porém, existem interesses diversos e isso não é possível, ponderou.

Por outro lado, prevalece o conceito empresarial. A especialista deu o exemplo de uma empresa de bebidas em uma região onde não há disponibilidade hídrica, e por isso não pode continuar seu negócio.

A única alternativa para continuá-lo será pensar em como colaborar para manter os mananciais e o patrimônio hídrico, indicou. No entanto, organizações sociais participantes da Cúpula dos Povos criticam este modelo.

Especialistas como Larissa Packer, da organização Terra de Direitos, temem que, ao se atribuir um valor financeiro a um recurso natural, em lugar de cumprir sua função de conservar a natureza, se estimule a depredação porque, segundo essa lógica, quanto mais escasso um bem mais ele vale.

Simonetti, por seu lado, considerou "malentendido" esse conceito. "Não é vender a



Roberta Simonetti, da FGV: é preciso incorporar o capital natural nos custos.

natureza. É entender que, como um serviço ecossistêmico, tem um valor e que, por exemplo, se um fazendeiro conservar a floresta, tem que ter uma compensação para sobreviver sem cortá-la", argumentou a especialista da FGV.

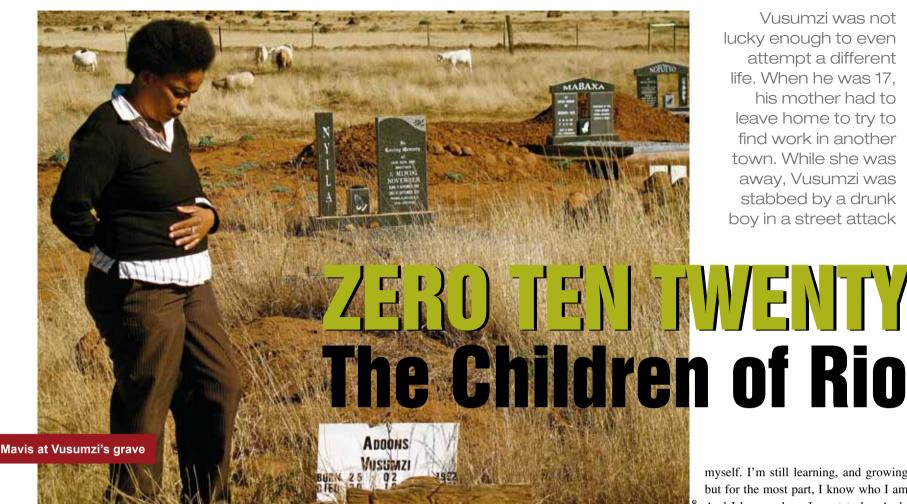
Em entrevista à TerraViva, Marcelo Cardoso, vice-presidente da Natura, uma multinacional brasileira de cosméticos, pioneira na produção sustentável no país, considera necessário e importante a discussão, mas tem reparos.

"Como os recursos naturais são um

bem comum, me parece fundamental a valorização dos serviços ambientais e dos ecossistemas. Entretanto, me parece que ainda temos que discutir limites e marcos legais", alertou. Nesse sentido, Cardoso entende a preocupação das organizações sociais sobre esses ativos.

"Existem sistemas como água, como a questão dos resíduos, que se não colocarmos limites claros à utilização, à necessidade de buscar ciclos fechados, à necessidade de sistemas fechados de água, e se só for feita uma avaliação sobre os serviços ambientais e seu uso, terminaremos criando mais devastação e destruição do que o que queremos construir", ressaltou.

Ricardo Villaveces, da Confederação Cafeeira da Colômbia, que também participou do Fórum, afirmou à TerraViva que aprova a decisão. "Na medida em que os ativos ambientais tenham valor, tudo o que vamos cuidar vamos conservar mas também vamos nos beneficiar deles, porque parte da questão é que é preciso obter uma renda pelos serviços ambientais", enfatizou.



#### ▶ By Sabina Zaccaro

It's 1992. Baby Vusumzi lives with his mother, Mavis, in a small house in a black township called Thornhill, one of the places blacks were moved to during apartheid. Vusumzi's father has just died of pneumonia and Mavis' work as a cleaner all they have to survive.

In the new South Africa, 12 years after apartheid, over 40 people a day are being murdered in places like this. "The people are all right till pay day, then all hell breaks loose," says 10-year old Vusumzi. "They often get drunk and have their wage packets stolen. Some of the poor people steal because they're very hungry."

Asked how he would improve things, he says, "I would stop grown-ups from raping children."

Vusumzi is one of the children who was followed by tve since 1992. For 20 years, tve has filmed the lives of 11 children, born in 10 countries across the planet at the time of the Rio Earth Summit, to see if the promises of a cleaner, healthier, bettereducated and less dangerous world would be fulfilled in their lifetimes.

"Now there's a new Earth Summit

in Rio, we've returned to each child to discover what happened to them," director Bruno Sorrentino told TerraViva.

Half an hour's drive from Vusumzi's house, Sorrentino finds another world. A fertile lowland, home to white-owned farms. It is where Justin was born, at a time of upheaval in South Africa's Eastern Cape. Apartheid has only just ended and white farmers viewed as settlers by radical black movements are being attacked. Justin's father and his wife Amanda sleep

For 20 years, tve has filmed the lives of 11 children, born in 10 countries across the planet at the time of the Rio Earth Summit, to see if the promises of a cleaner, healthier, better-educated and less dangerous world would be fulfilled in their lifetimes

with a revolver under the mattress, and the radio to call the police in case of trouble.

When apartheid came to an end, many things started to change. People's attitudes have changed, Justin's family says. "People want to get together and make the country work and the political situation work instead of being antagonistic towards each other and saying the other one is the 'big bad daddy', you know? They're working together to try and make a better place."

When Justin was born in 1992, only white children attended school. But that belongs to the past. "Like, a friend doesn't have to be the proper colour for you," says Justin. "He can be any, as long as he's a true friend. Always help you...play with you. Yeah, doesn't matter what colour he is for me."

Vusumzi and Justin grow up in a South Africa marked by separate development, where division is not so much about race but wealth.

Once in university at the age of 19, Justin feels like he has the future in his hands. "When I left my name behind in Queenstown I left all the insecurities I had, all the things I wasn't confident about in myself.... (now) I feel like I have found

myself. I'm still learning, and growing, but for the most part, I know who I am. And I know where I want to be. And I know what I need to do to develop, to grow. I'm an ambitious young adult."

Vusumzi was not lucky enough to even attempt a different life. When he was 17, his mother had to leave home to try to find work in another town. While she was away, Vusumzi was stabbed by a drunk boy in a street attack.

Three years later, Mavis is in front of Vusumzi's killer. She wants to forgive him.

"For 20 years, we have followed the lives of these 11 children born at the first time world leaders had got together to promise future generations a better world. It's been an incredible adventure," Sorrentino told TerraViva.

Education turns out to be a fil rouge, a common thread in all of these children stories

"When I started I had no idea of what the stories would be in the end. We chose the parents, not the babies...But yes, education has become a really strong theme as being seen as the universal way out. There's nothing new in this but it's interesting to see how strong it is."

The three-episode film telling the stories of 10 children, and the too short story of Vusumzi, is part of the multimedia ReframingRio project and was presented Monday, Jun. 18 in Rio. More can found on the tye website.

# A grande mudança virá ela vontade do p

#### Por Clarinha Glock

taxista Sérgio Cardoso Soares, 61 anos, não integra a comitiva de nenhum país, não milita em qualquer organização nãogovernamental, nem faz parte de uma empresa multinacional privada.

Soares, que trabalhou como funcionário público durante quase 20 anos e foi demitido durante o plano econômico do governo de Fernando Collor de Mello, começou a pilotar seu táxi justamente porque estava em uma fase de indefinição econômica e pessoal.

O Rio de Janeiro vivia então a efervescência da Eco 92. Naquele ano, Soares começou a plantar em um sítio na cidade de Vassouras

as 35 árvores frutíferas que trouxeram de volta para a região pássaros de todos os tipos. "Precisava deixar a política sindical de lado e viver o meu politicamente correto", contou.

Foi driblando o trânsito da capital carioca que conseguiu se manter e criar os dois filhos, hoje adultos, deixando de lado a experiência como desenhista técnico.

Agora, na Rio+20, enquanto dirigia o seu carro em direção ao Riocentro e ouvia no rádio as críticas ao documento final apresentado pelo governo brasileiro, apontou suas próprias conclusões sobre o histórico encontro: "Tenho visto uma mudança clara. Quem vai fazer as grandes mudanças do futuro são as pessoas dos movimentos sociais Taxista Sérgio Cardoso Soares: Se os governantes não fizerem nada, a população vai fazer

que estão nas ruas. A voz deles é que vai repercutir", previu.

Se os governantes não fizerem nada, a população vai fazer, acredita.

Soares encontoru na fila de exposições do Forte de Copacabana sobre meio ambiente pessoas que nunca antes haviam se importado com a ecologia.

"Empregadas domésticas que usam solvente e produtos químicos no dia a dia estavam lá. São elas que vão fazer a diferença ao exigir das patroas produtos mais saudáveis. Vão sentir como o trabalho delas é importante e cobrar dos políticos o saneamento dos lugares onde moram", acredita.

E resumiu: "As pessoas que você pensa que não estão na história, estão tentando escrever uma nova história".





A Invepar é um grupo comprometido fortemente com o desenvolvimento do Brasil e uma das principais empresas do setor de infraestrutura de transporte. É ela quem cuida, entre outras empresas, da administração do MetrôRio e da Linha Arnarela. Suas atividades têm como fim a prestação de serviços de mobilidade e como valores, a responsabilidade socioambiental e o empreendedorismo. E por ser uma empresa com uma visão que vai além da sua área de atuação, a Invepar é patrocinadora da Rio + 20.



















# Rio+20 Agreement Ignores Scientists' Dire Warnings

The science is crystal clear: humans are threatening Earth's ability to support mankind, and a new world economy is urgently needed to prevent irreversible decline, said scientists and other experts at an event on the sidelines of the Rio+20 Earth Summit.

Yet the Global Environment Outlook report, or GEO 5, which was launched on June 6 and assessed 90 of the most important environmental objectives, found that significant progress had been made only in four in the 20 years since the first landmark summit in Rio in 1992.

Achim Steiner, the executive director of the United Nations Environment Programme (UNEP) said the results of GEO 5 were "depressing, even to me".

"This ought to have us shaking in our boots," Steiner told TerraViva at the Fair Ideas conference that concluded Sunday. "It is an indictment of our behaviour over the past 20 years and of the governments we elected. We need an honest conversation about why we are not turning things around."

Instead, "what happened in the Riocentro (Rio+20 official site) is that science was picked out of the text of the final agreement," Johan Rockström, executive director of the Stockholm Resilience Centre in Sweden, told the conference.

Climate is only one of those "planetary boundaries". Another is the ongoing decline of biodiversity, where so many plants and animals are going extinct that the Earth's living systems, upon which humanity depends, are unravelling. Fresh water is another planetary boundary. Water is a limited resource, yet water use has increased six-fold in the past century.

"The science is absolutely clear: we are up against the edges of the planet's ability to support us and approaching irreversible tipping points," Rockström said.

What the science is also showing is that "we are in a situation where we have to share finite budgets for carbon, phosphorus, freshwater, land and so on", he added. It is clear the majority of the world – that is, countries of the global south – has used far less of those "budgets".



If rich countries are to consume their fair share, they will have to use less, Rockström explained, and for that reason, the very science of planetary boundaries is under attack by certain interest groups whose profits rely on the ability to use these resources, no matter how destructive.

"There is no question rich countries must reduce their ecological footprint," agreed Steiner.

The term "ecological footprint" refers to the system of measuring how much ecosystem it takes to support each human life on the planet. The average American footprint is many, many times larger than the average African footprint.

At the same time, poor countries need to learn how to green their economies, Steiner said. Above all, "none of this can be done under the current economic system that is imprisoning us."

"We have hard choices to make.
We cannot have win-win situations all the time," said Camilla Toulmin, director of the International Institute of Environment and Development (IIED)

What Rio+20 is really all about is the beginning of a new world economy and a new era of international governance. "More will come from this than expected, but not in the sense of formal agreements or documents," he said.

"We have hard choices to make. We cannot have win-win situations all the time," said Camilla Toulmin, director of the International Institute of Environment and Development (IIED) based in London.

"In Rio, we need a grand bargain: the rich countries agree to cut their consumption, waste and energy use and the low and middle income countries agree to move forward towards low carbon economies," Toulmin told attendees.

The bargain is easier said than done, however, and negotiations have morphed into a political battle that is no longer about science or development. It is a battle between "those who feel their interests are threatened and don't want change and the rest of us who recognise the compelling need for change", Toulmin said.

"It would be great if we could work this out rationally... but I fear we're headed for an unplanned and violent resolution, judging by the current state of negotiations."