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Copenhagen conference

"Confronting Climate Change

- Red-Green Transformation in Europe and globally"

Justice and equality as precondition for an effective environmental and climate policy. -

Climate change and distribution – Basics for an eco-socialist "narrative"

> Josef Baum University of Vienna Transform Austria

> > www.josefbaum.at

josef.baum@univie.ac.at



Josef Baum

University of Vienna Interdisciplinary senior researcher Economist and Geographer

Dr. rer. soc. oec., Dr. rer. Nat.

Department of East Asian Studies, University of Vienna Institute of Geography and Regional Studies, University of Vienna josef.baum@univie.ac.at

http://www.josefbaum.at



Multiple crisis

- **Economic** crisis (unemployment)
- Financial crisis
- Refugee crisis
-
- Various environmental crises (decrease of species, water, soil,....)
- Climate crisis probably the most fundamental in the medium run

COMMON DENOMINATOR OF CAUSATION UNEQUAL DISTRIBUTION + SHORT TERM mechanism (of PROFITMAKING)

<u>Climate crisis and global distribution</u>



==>Integrated solution for Multiple crisis

Systemic view:

NOW various crises reinforce each other

- Economic crisis (unemployment) Financial crisis
- Financial crisis
- Refugee crisis
-
- Various environmental crises (decrease of species, water, soil,....)
- Climate crisis

COMMON CAUSATION

COMMON SOLUTION

Measures that simultaneously relieve different crises

Integrated solution for multiple crises

→ REDISTRIBUTION

- →System change
- →Eco-socialism

Correlation between income and emissions

Socially differentiated emissions per capita

Empirical correlation of stratification along income for consumption and emissions per capita

Evidence of <u>differentiated emissions/consumption of the traffic services</u> a day for Austria: quartiles (income):

1 st quartile	20 km
2 nd quartile	40 km
3 rd quartile	53 km
4 th quartile	80 km

(see: Steininger K., Gobiet W. (2005): Technologien und Wirkungen von Pkw-Road Pricing im Vergleich, Wegener Center Graz, Bericht 1/2005, p 20f

Basic status

- Currently still high and partly increasing GHGemissions
- weak awareness in the global north
- for development issues of the south
- for the distributional core of the problem
- ➢ for the historical dimension of the problem
- for distributional issues on all levels (regional.... Global)

PARIS TREATY DECEMBER 2015

- Obviously the dominating forces did not want a binding treaty like KYOTO
- The aggreement unfortunately is the sum of voluntary goals without a relevant distribution setting which would be required to come to efficient mitigation

==> "**intended** nationally determined contributions (INDCs),

 Setback behind Rio 1992 and Rio 2012, where the principle of "common but differentiated responsibility" (CBDR) was acknowledged

Current mechansisms in global climate policy:

By territorial country approach:

Transfers from the more poor in the global north to the more rich in the global south

Basics of climate policy



because of irreversibility and uncontrollable implications when > 2°C

→ <u>fixed</u> volume of future GHG emissions

How to allocate this volume of remaining GHG emissions? =Which distribution among countries and persons?

Missing link of climate policy



=X (but which concrete implementation?)

The equation for the missing link of climate policy

2°C target (Copenhagen accord & Paris Treaty)

fixed volume of future GHG emissions



basic distribution principle (Common but differentiated responsibility)



= climate stabilization





=climate stabilization

Concepts of equal rights in the context of climate change (1)

- Heuristic approach
- The starting points for the view of equality and fairness in connection with the climate change can come e.g. from:
- ◆ obligations from international documents,
- Or from the fact that necessary international contracts simply will not come into being otherwise
- Fundamental principles of distribution
- can be e. g. (pre- scientific/political/ethical):
- **●** ◆ Parity
- ◆ Proportionality
- ◆ Priority

Concepts of equeal rights in the context of climate change (2)

- In principle we can see procedual, effort-oriented and results-oriented principles of equality and fairness
- Oxfam e. g. uses 3 princples:
 - Fairness,
 - capability,
 - simplicity
- CICERO-ECZ stress
 - guilt,
 - capacity und
 - need

Procedual principles of equality and fairness

- Market mechanism
- Willingness to pay
- Auction
- Consent (can mean very different: from discretionary to fixed rules)

"Efficiency" targets

- Equal CO2-emissions per unit GDP
- Equal marginal mitigation costs
- Mitigation costs in proportion to emissions per unit of GDP

Grandfathering

- Equality of <u>absolute</u> CO2-reductions per capita (could be negative at poor countries, therefore not possible logically at any events)
- Equality of <u>relative</u> CO2-reductions per capita (for industrial countries - Kyoto),
- Control Con
- Outcome based, "horizontal": Equal net welfare change (equal proportion of GDP)
- * compensation for net-loosing countries: "No nation should be made worse off" –

Grandfathering with securing of minimum

- Rawls Maximin (Maximization of lower incomes within the existing environment)
- "No purchase": poor countries get CO2certificate without payment within a basis scenario
- "No harm": No costs for more poor countries

Historical dimension

Contributions to climate change on the basis of greenhouse warming potentials (GWP) cumulative weighted emissions

(These are NOT per capita values

but

relative global shares)

- EEUR: Eastern Europe
- FSU: Former Soviet Union
- ALM: Africa and Latin Americ



% Contribution to temperature increase in 2000



Correlation between GDP per capita and historical accumulation

- There is a largely confirmed correlation between GDP per capita on the one hand and the causing of emissions in the sense of historic responsibility for the accumulation of greenhouse gases in the atmosphere on the other hand.
- Relevant deviations from this only are for countries with high GDP growth rates per head in recent times (like China or Asian "tigers")

Industrialization on a global scale - big emerging countries "- is not surprising

What is surprising is rather

- that current global industrialization of developing countries seemed to be a surprise to many organizations such as the OECD, IMF and World Bank;
- that the corresponding

 *commodity demand,
 *price and
 *emissions consequences
 has not been seriously envisaged and
- that no global concepts and contingent preparations have been made,

Equal rights for the atmosphere - concepts (1)

- "Outcome based vertical":
- (Net)gains inverted to GDP, losses proportional to GDP
- Egalitarian: Equal right for pollution (per capita) <u>territorial</u>
- Position of G-77
- Date of convergence has to be fixed
- Egalitarian: Equal right for pollution (per capita) <u>functional</u>
- compare "ecological footprint"
- Clearing up of trade net
- Modified polluter pays principle
- Production (incl. emissions) for whom (not : where)
- "Net exports (in China) accounted for 23 % of China's total CO2 emissions."[1]

[1] Watson J., Tao Wang, Is the west to blame for China's emissions? December 20, 2007 <u>http://www.chinadialogue.net</u>

Equal rights for the atmosphere(concepts 2)

Egalitarian: causal <u>historical</u> responsibility for greenhouse gas emissions – <u>territorial</u>

= "Brazil proposal"

- *Former economic and ecological asymmetric distribution integrated
- *UNFCCC MATCH-process
- *In the context of the Kyoto process Brazil made a proposal which aims at differentiated emission reduction after accounting the sums of the historical contributions of greenhouse gas emissions by various countries.
- Egalitarian: causal <u>historical</u> responsibility for greenhouse gas emissions – <u>functional</u>
- *Clearing up of trade net
- *Historical polluter pays principle
- *Production (incl. emissions) for whom? (not : where?)

Equal rights for the atmosphere concepts (3)

- Egalitarian: Equal right for pollution (per capita) <u>control view</u>
- Rights of property and power of disposal?
- Who controls the value added?
- 58% of Chinese exports are controlled by transnational companies
- •
- Egalitarian: Equal right for pollution (per capita) <u>control view</u> for the whole viewed era - <u>historical</u>
- Who has had the property and disposal rights in previous time periods?
- And who has checked the obtained net product?
- *World-system approach (Wallerstein)



Different distributions - basic views on foundations for solutions (GHG): [columns] **1.Cumulative** historical causation **2.Current flux 3.Probable growth** potential 4.in relation to population

Fundamentally New: the "deadline" can enforce "simultaneous" solutions (1)

- Fairness and equality put questions for the historic responsibility of the accumulation of greenhouse gases:
- This question brings capitalist north's past back in an rather unexpected way. For the first time strong trump cards belong to the south in the central question of burden sharing; probably the "poor" are hit relatively stronger, but climate change also hits the "rich" strongly and they only hardly can escape totally
- Because of complex patterns of many losers and only few winners of climate change:

→ There will be only comprehensive large or no relevant solutions

 A fair solution for costs of climate change mitigation and adaptation can bring the foundation for the development of the South by redistribution, and thus global convergence and cohesion

Fundamentally new: the "deadline" can enforce "simultaneous" solutions (2)

- There are "deadlines" for solving the climate issue, now an existential question of humanity
- In proportion to the huge challenge there is not much time: a window of opportunity of about 15 years to keep any drastic change in the framework of "known territory"
- The solution to the climate issue can only be global, requires the involvement of almost all countries
- The poorer countries can and will only join on the basis of fairness and equality

"Climate change is the greatest market failure the world has ever seen."*

- The Stern-Report states: "Climate change is the greatest market failure the world has ever seen.
 - "But here "market" is apparently a synonym for capitalism, therefore we could deduce: climate crisis can be seen as "the greatest failure of capitalism the world has ever seen"
- In general the Stern Report although highlighting the problem produces also some new base lines of defense in the foreseeable discussion on issues of climate change, capitalism and the distribution costs of climate policy
- The Stern Report is **inconsistent**, too: If climate change is the "biggest market failure" why climate change should be tackled with even more market (CO2 trading, etc.), especially since these recipes did hardly work till now.

*Stern Review: The Economics of Climate Change (2006) www.hmtreasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm

<u>Sir Stern (Stern Report, + updates): a new strong narrative</u> of capitalism

- On the one hand Stern has a very realistic analysis of BAU (business as usual) in climate change scenarios – good rationale for massive and quick actions
- Stern: But only capitalism has the creative potential to handle the challenges (Schumpeter!?) – stressing current developments in PVindustry

Alternative picture:

GHG-accumulation in the atmosphere triggered by long term capital accumulation generally is

- = privatization of the atmosphere
- = privatization of the global commons
- = expropriation of the environmental space

<u>Capitalism and sustainability – a contradiction?</u>

Can capitalism tackle environmental problems definitely?

What about

the **rebound effect** (more energy efficiency but also more demand to energy) because of capital accumulation implications? Saved resources increases capital accumulation; so at the end the effect of saving is less than the expansion effect

Lock- in in fossil technologies because strong oligopolies can prevent devaluation of capital invested in fossil technologies

(Shifting to) short **term** rents and profits (determined also by the financial sector) – profit rates as "discount factors" devaluate future (values)

Lacking compase: No or small integration of social and environmental costs in prices





There are many arguments that a broad convergence under capitalist conditions will not be possible

Naomi Klein's book 2014: "This changes everything. Capitalism vs. climate"



An often forgotten central element of political ecology: Oligopolization

 distributional assymetries on all levels also determined by Oligopolization (monopolization)

➤ inherent to market mechanism

See increasing proportion of large corporations in controlling world production

connected with concentration of political decision making - de-democratisation

But ambivalently: shows also socialization of production

Profit rate devalues future

• Via discount rates ("time preference rate"), future values are transformed to present values (future harms or positive effects).

 $X=X/(1+r)^{n}$ r:= discount rate n:= number of accounted years

- Mechanism of **compound interest** !
- Usually in practical terms in **cost-benefit anal**yses discount rates are assumed as high as the **average profit rates of about 5-6%**.
- Discount rates, which are not close to zero, devalue future damage (or positive effects) beyond the immediate next few years or decades to a value close to zero. See the diagram.
- So mitigation of climate change would hardly be worthwile. Future in general or the life basis of life for future generations almost completely is devalued (e. g. the calculations of Nordhaus on climate change).

Discounting central for distribution

202 Dividing time and discounting the future



Figure 8.1 Reducing the weight of future events



Time

Figure 8.2 Weighting for 100 years of disounting

within about 40 years, at which point values (flows of costs or benefits) would add almost nothing to the summed discounted value arising from a project. Even the lower rates of 1 or 2 per cent limit time horizons to a few hundred years with events then having little or effectively no weight in decisions. Figure 8.2 shows the impact within a 100-year time horizon. For example, under the 10 per cent rate half the

C. Spash (2002)

Spash, C.L. (2002): Greenhouse Economics. Routledge, Seite 202

Discount rates in the height of avarage profit rates push the value of future near zero

Sustainability by zero-profit rate ?

- The well-known Stern-Report on climate change is citicized by mainstream economics due to "too low" discount rates: Stern report would so implicate "too high" values of future harms (Nordhaus*) and "alarmism"
- (but Stern Report is to criticize for other reasons)

So:

 Only when the decisions on investments no longer dependent on the profit rate; or when the profit rate / discount rate is near to zero, a sustainable development is possible

*Nordhaus, William: Critical Assumptions in the Stern Review on climate Change. <u>http://www.sciencemag.org</u>. SCIENCE Vol. 317, 13 July 2007
Climate change as the "greatest failure" of mainstream economics?

- If, according to the Stern report climate change is the "greatest market failure of history", then mainstream economics has been involved essentially at the biggest "market failure"
- Strange: NORDHAUS as last "Nobel prize winner"!
- Profit in mainstream economics often is a premium for <u>"risk"</u> to make capital available
- Now in some dialectical turn the profit mechanism and the capital accumulation turned back the risk by the CO2 accumulation in the atmosphere - an <u>absolute</u> <u>socialisation of risk</u>
- By the "risk" of profit the global risk for mankind and civilization has developed to the largest extent.

But we should not underestimate the existing flexibility of capitalist structures. Capitalist societies could be adapted to many different conditions and we can look on a broad set of "varieties of capitalism".

But adaption at which speed? In time for needs of climate change?

Anyway the fight for saving the foundations of mankind has to start asap also within the modes of capitalism.



Climate change as the greatest failure of capitalism the world has ever seen

Non-linear, rather sudden developments, which could lead to relatively fast disasters, are hardly taken into account in general climate models or at Stern (also because it is very difficult to model),

- Possible self-reinforcing effects:
 - faster thawing of tundra with extensive methane release
 - faster melting of the Greenland ice
 - faster melting of the West Antarctic and others; all with very far reaching consequences.

Limitation of effects of climate change needs a radical turn (1)

- Basic results (Stern-report and others:) the sooner effective climate policy starts the "cheaper" and less sacrifices"
- Until 2050 GHG-emissions would have to get at least roughly 80 % below the actual level
- In the global north: fair global solutions at least minus 90 %

➢ G77-paper in Bali: global north minus 95 %

Limitation of effects of climate change needs a radical turn (2)

"A radical turn just now seems rather unrealistic.

But further business as usual even more seems to be an ,utopian fantasy"

Bellamy Foster (2009): The ecological revolution – making peace with the planet. P.259 (citing Raskin)

Energy as central factor for political economy and political ecology

- Energy connects climate change via emissions of CO2 of fossil energy
- Energy has been decisive for productivity of labour
- →Energy issues can be seen as pivot:

E.g. food prices are highly correlated to energy prices, because in food there is incorporated much fossil fuel Harsh environmental conditions of concrete (work) life +questions of health had a significant role in the development of socialist movements in the 19th century m

Beginning with the works of Marx there has been always strands in integrating ecological issues into socialist theory - currently see Paul Burkett, James O'Connor, John Bellamy Foster



In the October Revolution in a broader sense the question of war and peace was crucial - comparable to environmental issues of human existence

Also in the Soviet Union there have been somehow "ecosocialist" sections but never mainstream

Like in capitalist countries heavy ecological disasters happened like around the Aral Sea. The tragedy of Chernobyl can be seen as significant event in the last years of the Soviet Union.



We have to state that the Soviet Union could not develop a concrete alternative model of sustainable development, also because of confrontation in the cold war, arms race and containment policy. But also because of a too inflexible interpretation of Marxism.

Because "developed" countries could not realize a possible change to sustainability but adhered on the unsustainable track with very high use of resources and high volumes of emissions p. c. the industrialization of <u>emerging countries also</u> followed on this unsustainable track.



Ecosocialist landmarks - E.g.:

- "Ecological Civilization" at the 17th party congress of CPC in 2007
- Ecosocialist concepts within the European Left :
- including some relevant parties with dedication to ecosocialism in Denmark (Red–Green Alliance) or
- France (Parti de Gauche, Jean-Luc Mélenchon)





"Lack of coherence in ecosocialist theory" (Panitch)

Ecosocialist approaches can be identified in various global regions although with different notions. E. g. in Latin America: concepts on "buen vivir"

Discourses often self-referentially are concentrated on the own cultural area, e. g. in the Anglo-Saxon or German area

Western discourses could profit a lot from ecological experiences in China and China's own tradition of "Ecological Marxism"



Open Questions in times of DEADlines for mankind

We hardly can offer proved alternatives.

We will enter "new territory" - especially because of climate change.

"DEADlines" create new realities

→Speed matters

So what is ecosocialist policy in times of DEADlines for mankind? - Because of irreversible processes



Regulation and planning as central issue of <u>transformation</u>

Promoting collective solutions from within the capitalist system, going against its logic, will play a part in the transition to an other people-controlled system.

By (re)regulations the inherent valorization of capital can be limited. Procedures of planning can safeguard the (socio-ecological) perspective.

Increasing economic spheres can be decommodified and developed by alternative organisations like cooperatives.



Democratic planning

By the revolution of information technology

- information compilation,
- •monitoring,

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- adaptation,
- participation and
- •democratic coordination are possible



"Revolutionary" situations in a socio-ecological <u>view</u>

Disruptions or maybe one big break, in which power shifts away from asymmetries towards some dual sovereignty and then to democratic decision making can come about in some Gramscian thinking

Can more frequent natural disasters result in social and political crises and classical revolutionary situations?



For expectable situations of natural disasters determinedly democratic mass-actions will be appropriate to realize concrete measures of a necessary socio-ecological transformation.

All (potentially) socialist revolutions until now happened in some connection with national questions (also national wars), from the Commune in Paris 1871 until the Vietnamese Revolution.

The parallel with the current socio-ecological harassment is the existential threatening.

Positively: in some "state of emergency" maybe combined forces can be mobilized, but also threats for authoritarian solutions



Note **Fukushima** Daiichi nuclear disaster 2011 and its implications to Germany: → complete change of nuclear energy policy, and exit fossil energy.

Background for this turn: mass actions and grass-roots activities against risks of nuclear energy in densely populated areas since the end of the 70s, which changed gradually the stance of the majority of the people





Exploitation of labour and the degradation (and exploitation) of nature have a common basis in the capitalist mode of production.

Poverty or richness make a difference in causation of ecological crisis and suffered environmental pressure

Correlation between <u>causation</u> of environmental troubles and income along class criteria (distribution and capitalist accumulation.

Correlation between <u>exposition</u> to environmental harm and income resp. class.



Correlation between income (wealth) and emissions

Socially differentiated <u>emissions</u> per capita

Empirical correlation of stratification along income for consumption and emissions per capita

Evidence of <u>differentiated emissions/consumption of the</u> traffic services a day for Austria: quartiles (income):



(see: Steininger K., Gobiet W. (2005): Technologien und Wirkungen von Pkw-Road Pricing im Vergleich, Wegener Center Graz, Bericht 1/2005, p 20f

GHG emissions along deciles (household income) – Austria for different spheres

Blue: services Dark green: various Light green: mobility Light orange: energy Orange: habitation Red: food



Correlation between income (Wealth) and exposure to negative environmental effects

Socially differentiated <u>exposure</u> Empirical correlation of stratification along income for exposure

- E. g.: Harassment by traffic exhaust emission different for income and wealth
- Persons at risk of poverty evaluate their exposure to negative environmental effects in all fields (noise, air quality, green space...) worse to others

Harassment by traffic exhaust emissions Low income – medium income – high income Austria



*Auf "Äquivalenz"-Basis: Bei Einkommen und Ausgaben werden Kinder in Haushalten differenziert berücksichtigt

Aus: Prettenthaler Franz, Habsburg-Lothringen Clemens, Sterner Cornelia (2 Soziale Aspekte von Climate Change Impacts in Österreich, 2008. S.10

More general: Harassment by smell and exhaust emissions - along income - Austria

Total income – **low** income – **medium** income – **high** income Dark green = strong; light green = slight



Implication health

Health conditions differ substantially along classes and strata:

So e .g. in Germany the expectation of life in the upper quintile of income is 8,3 years longer for women and 10,8 years for men than in the lowest quintile,

and the expectation of healthy years differs still more the gap is 13,3 years for women and 14,3years for men



Concrete distribution issues are underexposed in the climate policy discourse.

If <u>lower income groups</u> are relatively more disadvantaged by different forms of socioeconomic and socio-ecological inequality, <u>these groups will experience an increase in the socio-</u> <u>ecological burden when climate change continues</u>

On the other side SO lower income groups WILL EARN MORE GAINS BY EFFECTIVE CLIMATE POLICY

Dimensions of distributions

- Social-economic,
- Socio-ecological,
- Spatial,
- Temporal or Intergenerational dimension

The socio-ecological dimension can be divided again into nine levels.....

Nine levels of the socio-ecological dimension of distribution

(Pro rich pro-poor)

- 1. Access and use of "natural services"
- 2. Vulnerability/ exposure of damage and environmental degradation
- 3. Risk and uncertainty
- 4. Causation of environmental damage
- 5. Costs/burden of environmental measures and
- possibilities to transfer costs (incidence of taxes)
- 6. Possibilities for influencing environmental policy
- 7. Positive impacts of environmental policies
- 8. "Co-benefits" of environmental policies : indirect effects
- 9. Adaptation effects to positive changes of the environmental situation (e.g.: higher prices for houses)

Climate policy is pro-poor

7 of these 9 levels of the socio-ecological dimension of distribution are asymmetric in favor of upper income levels: with pro-rich effects:

Only level 6 and 7 - the positive impact of environmental and climate policies and cobenefits are pro-poor.

So the overall impacts of climate policy are basically pro-poor, especially when at the costs of environmental measures (e.g. by taxes) the pro-rich effects can be mitigated, eliminated or reversed by a per capita bonus or other compensations <u>About subjects of transformation towards ecosocialism and "revolutionary situations" in</u> times of dead-lines of climate change



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Agents of socio-ecological transformation

Who are the (revolutionary) subjects of a fundamental socio-ecological transformation towards eco-socialism?

In a fundamental socio-ecological transformation the actors are far less clearly defined than in classical Marxism.

The other extreme: are all affected and/or activated by negative environmental impacts these subjects? And who are then the opponents?



One answer is: the proletariat has always been environmental and so "only" the **policy of alliances has to be adapted**.

On other pole of answer is: a new (global) "**environmental proletariat**" (**Foster, Burkett**) has been emerging primarily "at the periphery of the capitalist world", "for whom resistance to environmental conditions broadly, and not simply industrial conditions, is the defining struggle"(Foster), especially e. g. (future) climate change refugees at low lying coastal areas are referred.

Kovel: "there is no privileged agent" or revolutionary class, numerous autonomous movements can represent potential for agency in eco-socialist transformation (rather fuzzy)



Anyway environmental and class struggle may overlap

Strong arguments that at least on a global level not the "middle classes" are the main driving actors in environmental battles but workings classes, see "Environmentalism of the Poor".

→ contested question objective "class IN itself" to a conscious "class FOR itself" or agent for itself



Remind the prognosis that the development of labour productivity would rule the superiority between capitalism and socialism. Unfortunately this was right for the fate of the Soviet Union.

The Soviet Union – beyond several problems - stuck in some "middle-income trap". Maybe the most important issues in this view were failures in achieving more innovation

A prognosis : eco-socialism will prevail superiority when another type of eco-efficiency in the sense of fundamental innovation and comprehensive socio-ecological development can be enforced.



Productive forces and socialisation of productive relations are pushing for new solutions: Irreversibly local, regional and global ecosystems and social systems are melting together.

The right turn in Europe and the US and the issue of refugees and migration also puts the question for global solidarity drastically.

Which political force can secure the livelihood of broad masses at a worsening status of the environment? Only global solutions based on equity and solidarity will have success



TAMARA to replace TINA

We have to fight the hegemony of TINA (There Is No Alternative – to neoliberal policy) and replace it by TAMARA (There are many and real alternatives).

A positive coefficient of hope for change to sustain livelihood in relation to paralyzing fear can re<mark>flect</mark> the dynamics



