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**Kurz-Paper****Bedingungen, Chancen und Kernfelder einer sozialökologischen****Transformation:****Elemente für eine Reformulierung des Historischen Materialismus -****Wird Ökosozialismus „notwendig“ ?***(Conditions, opportunities and main fields of a socio-ecological transformation:**Elements for a reformulation of historical materialism -**Will ecosocialism become "necessary"?)***Abstract**

*The socio-ecological approach can and should be integrated in the old left issue of equal rights: the concern for stable ecological systems refers to the vertical equality between present and future generations needing sound fundamentals, ( the current distribution refers to the horizontal equality between classes, regions etc.).*

*The unsustainable level of social metabolism (input from nature and “output” to nature) in the developed countries together with the broad industrialisation of emerging countries cause new situations. Stable solutions for the fundamental resource and emission problems are probably possible only by “fair” distribution (on global and various other levels) and solidarity. "Simultaneous" solutions for many problems – resources, emissions, distribution and development - are necessary.*

*The essential news of the the 21<sup>st</sup> century: by climate change there are **DEAD**lines, and by developments like uncurbed climate change also the “rich” have to lose a lot. And also this is*

*new situation shifting the parallelogram of power. The concrete alternatives and real paths of transformations are weak points.*

*Joint production or “economies of scope” often forgotten is crucial for the adequate socio-ecological transition. Revised concepts of rationality and (eco-)efficiency has to be agreed therefore. For an “optimal” or sufficient development the adoption of limits on the input side (resources) and limits on the output side with (complex) implications of emissions and waste a revival of democratic **planning** will be on the agenda.*

*In the 21<sup>st</sup> century eco-socialism is on the agenda, because of the necessity to secure the foundations of mankind*

*Referring to Feuerbach Marx mentioned that philosophers interpreted the world in different ways but the point is to change it. The eco-socialist addition would be **not only to change the world but to protect it.***

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Currently financial crises dominate the attraction of attention, and millions are scared understandably about the security of their livelihood. Other crises associated with environmental issues take somehow a backseat, although there are clear connections and causations are similar in the last resort.

Events like the floods at present in Thailand or last year Pakistan, growing hunger in East Africa, sweeping fires in Russia, the Fukushima accident or the price rallies for food and many basic commodities basically can be assigned (also) to climate change and announce a (future) fundamental crisis in the ecological basis of society.

Energy issues can be seen as pivot: E.g. the food sector is determined by energy development to a high degree (food prices are highly correlated to energy prices, because in food because of the industrialized form of agriculture economically because people feel changes more intensively).

**Essential new coordinates: DEADlines**

Environmental crises are no new phenomena; on regional levels they have existed for a very long time and also on global scales at least since decades. But there is an essential news: by climate change there are **DEAD**lines. They are discussed in science since about thirty years, since about twenty years there is a significant concordance in science about this, and since the last twenty years only the probability of dramatic consequences of a business-as-usual path has been increased (not to be confounded with uncertainty in the sense of high variance of concrete realisation).

There are a lot of other global environmental hot problems, somehow interconnected with each other, but also “independent”. In the seminal work of Rockström et al (2009)<sup>1</sup> global problems are ranked: in three fields (climate change, biodiversity and the phosphorus cycle) are ranked beyond of a “safe operating space”. Maybe the biodiversity field in a very long run is even more severe; but evidently in the climate crisis we are very near to irreversible tipping points which question basics of existence of mankind.

These irreversible tipping points change the rules of the game: Until now distributional conflicts often have been solved also at the cost of the environment or at the costs of future generations. Now (= in the next decades) the things are changing: not to consider future harms will hurt short and mid term assets.

### **Shifting parallelograms of power**

There are complex patterns of losers and few winners of climate change; and probably the “poor” are hit relatively stronger than the rich (although they did hardly cause the mess), but uncurbed climate change developments also will strike the “rich” which will absolutely have to lose a lot and they will only partly be able to shift this incidence.

This will be a new situation shifting the parallelogram of power.

There are further new conditions of the first decades of the 21<sup>st</sup>:

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<sup>1</sup> Rockström et al (2009): [A safe operating space for humanity](#) *Nature* **461**, 472-475 (24 September 2009)

The unsustainable level of social metabolism (input from nature and “output” to nature) in the developed countries together with the **broad industrialisation** of emerging countries and of almost the entire world with unprecedented increases of material flows with unprecedented implications on the resource and emission side. Currently we face peak oil, and we will face peak of almost everything on the input side of economy. On the output side there are emissions with various implications most important the green house gases causing climate crisis. The implications of accumulation of greenhouse gases parallel to accumulation of capital will cause the most heavy challenges for mankind in history till now in this century.

In this context the experiences of the climate change issues (see Copenhagen) are obvious. **Solutions** for the fundamental resource and emission problems are **only stable by “fair” distribution** (on global and various other levels) and solidarity.

**"Simultaneous" solutions** for many problems – resources, emissions, distribution and development - **are necessary** and possible.

When distributional conflicts will only decreasingly be able to be postponed and offset the core issue of the left is back.

So to put an hypothesis: **In the 21<sup>st</sup> century there will be eco-socialism or no solution**, because of the necessity to secure the foundations of mankind.

### **The status of Ecosocialism**

There is some literature on analysing environmental issues from the view of political economy or political ecology in the last twenty years: James O’Connor, Foster, Burkett, Benton, and others.

The journal “Capitalism Nature Socialism” started 1988.

In Germany the debate began earlier in the beginning eighties. Economic accounting on material and energy basis could be found more earlier at Otto Neurath. Also Bogdanov and Bukharin belonged to an almost forgotten strand of socialist thinking; not to forget the seminal Podolinsky in the eighties of the 19<sup>th</sup> century. Many regions have their specific discourses, also in China there has been an broad eco-Marxist tradition little known in the

West there is an important rather new book of **Huan Qingzhi** (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization).

But: "... the absence of a strong socialist left is reflected in a corresponding lack of coherence in eco-socialist theory"<sup>2</sup>

"The major strengths of eco-socialism – as an alternative to green capitalisms – lies in the socio-political criticism of the ecological maladies of capitalism. But eco-socialism is less successful when it comes to promoting the rationality and attractiveness of its institutional design for a red-green replacement."<sup>3</sup> The concrete alternatives and real paths of transformations are weak points: "... the problem of 'transformation agency' is far from resolved."<sup>4</sup> So the offer of plausible and coherent eco-socialist concepts and transformational paths has to be improved.

Basic features of eco-socialism are "Recognition of the inherent value of nature" and the "adoption of economic limits to large scale material production and consumption"<sup>5</sup>

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<sup>2</sup> Panitch Leo, Leys Colin (2006): coming to terms with nature – Socialist Register 2007. Preface p. IX

<sup>3</sup> Huan Qingzhi: Eco-socialism in an era of capitalist globalization bridging the west and the east. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P.4  
*Also Chinese Ecological Economics is hardly known in the West. The Chinese Society for Ecological Economics (CSEE) was founded 1984, four years before the „International Society for Ecological Economics“ (ISEE). Also the assigned journal "Ecological Economy" ("Shengtai Jingji") started four years before the ISEE-journal "Ecological Economics".*

*One specific Chinese background is a long historic tradition and experience of "social metabolism" or social ecology with "Chinese characteristics" which in essence are high density of population and economic activities on big areas combined with "social capital" in relation to "social metabolism". "Chinese written record on environmental matters is probably unique in its continuity and depth in time"*

(Elvin, Mark and Liu Ts'ui-jung (eds) (1998): The Sediments of Time. Environment and Society in China. The Chinese History. Two parts. Cambridge University Press).

*The conclusions of Ecological Economics currently are not implemented in China (as in the west), on the other side there has been a mainstreaming of the issues of Ecological Economics. Most important is the adoption of basic rationales of Ecological Economics by the 17<sup>th</sup> congress of CPC 2007.*

*The significance of (documented) historic agricultural knowledge in China for different regions in forthcoming climate change and implications of different adaptations in agriculture is very high and similar to the wellknown significance of Traditional Chinese Medicine (TCM)*

*Another hypothesis: Because in China currently the problems of the availability of resources (input for economy) on the one side and emission and pollution on the other side are worldwide most accentuated, and because China wants to catch up - and has also historically accumulated "social capital" - the pressure but also chance for a new paradigm of (sustainable) development is high (resp. higher than in countries where there is less pressure.*

<sup>4</sup> Huan Qingzhi: Eco-socialism in an era of capitalist globalization bridging the west and the east. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 4

<sup>5</sup> Huan Qingzhi: Eco-socialism in an era of capitalist globalization bridging the west and the east. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 6

The socio-ecological approach can be integrated in the old issue of equal rights: the concern for stable ecological systems refers to the vertical equality between current and future generations needing sound fundamentals, and the current distribution refers to the horizontal equality between classes, regions and so on.

Leading principles are “concern for long-term species survival” and the “assumption that no portion of the human race is entitled to deny any other portion of it, on any pretext, the conditions for a decent life.”<sup>6</sup>

And “unless eco-socialism is sex-gender literate, it cannot even begin to function as a democratic politics”<sup>7</sup>

### **Moses and the prophets**

Basically we know the drive and self- accelerating **speed of M-C-M'** and we know further the central role of capital accumulation (“Moses and the prophets”): “Capital accumulation system – including the externalization of social costs on the poor, less developed countries, and the planet at large that goes with this system of accumulation - has increasingly become a hindrance to human development and even to the survival of humanity (along with most ‘higher’ species)”<sup>8</sup>.

A central role belongs to the social **discounting**, which practically is similar to the profit rate: “If the pollutant’s lifetime is very long as compared to the time horizon of the decision maker, for example for some greenhouse gases or radioactive wastes, the standard result of capital theory is completely reversed”<sup>9</sup>

Risk in the mainstream economic justification is a reward for the profit but the fundamental implications of global risks are attached to whole mankind. Basic concepts to analyze capitalist market economies in regard to sustainability are information deficiencies about material flows and possibilities of recycling, externalization of costs, deregulation of trade, impacts of automation - economies of scale and economies of scope.

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<sup>6</sup> Wallis Victor: Socialism and technology – a sectoral overview. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 60

<sup>7</sup> Salleh Ariel: How the ecological footprint is sex-gendered – implications of eco-feminism for an eco-socialist theory and practice. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P.141

<sup>8</sup> Foster Bellamy (2009): The ecological revolution – making peace with the planet. P. 13

<sup>9</sup> Baumgaertner Stefan, Faber Malte, Schiller Johannes (2006): Joint Production and Responsibility in ecological economics. P. 342

Blocking factors on the path to circular economy firstly are contra productive incentives (material resource prices not reflecting full “costs”, inappropriate taxes), lock in, path dependency, sunk costs, rebound effects, and oligopolistic market power of incumbents.

Environment is also in new sphere of accumulation of capital producing new “vested interested” of half-way solutions for remaining within the paradigm (E. g. incineration of waste)

### **Eco-capitalism conceivable?**

The question if or to what degree an “**eco-capitalism**” is possible is not decided definitely until now. Anyway a much more socio-ecologically regulated capitalism hardly would remain the capitalism we know up to now. When the possibilities of capitalist systems to integrate resource and environmental systems are exhausted the question of the development towards eco-socialism is on the agenda. Then a change and transition is necessary and an eco-social path is real. Further business as usual will be an “utopian fantasy”<sup>10</sup>, some mean that is true already to-day.

It would be a miracle if the “invisible hand” via the “efficient” capital market of Eugene Fama (Prices reflect all available relevant information) would achieve by chance only one target within the complex setting. It would be still an even bigger miracle if this “invisible hand” would achieve necessary essential targets. And it would be a mega miracle if also the environmental problems would be solved integratively.

### **Circular economy and democratic planning on the agenda.**

The basic material flow side of existing economic systems mainly is linear:

Resources ==> *production* ==> goods +waste+emissions (bads)

A fundamental principle of an alternative system overcoming the problems on the input AND output side is to close the cycle resulting in a recycling society or (material) **circular economy** (This does not mean autarky).

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<sup>10</sup> Foster Bellamy (2009): The ecological revolution – making peace with the planet. P.259 (citing Raskin)

Joint production and the implicated system of economic and ecological causations, the “socialization” of production is an often forgotten fact, it is crucial for the adequate socio-ecological transition: “A thorough understanding of joint production and its consequences is... an indispensable prerequisite for taking responsible action that meets the challenge of sustainability.”<sup>11</sup>

We need a “revised concept of efficiency which takes into account all inputs and outputs of a particular productive activity (and not just those are measured in the profit margins in particular enterprises”<sup>12</sup> This requirement can be delivered by combined ecological-economical input-output schemes.

Revised concepts of rationality and (eco-)efficiency has to be agreed therefore. For an “optimal” or sufficient development the adoption of limits on the input side (resources) and limits on the output side with (complex) implications of emissions and waste require a revival of democratic **planning** will be on the agenda.

### **Global and/or regional?**

Important ecological commons like the atmosphere are not limited by nation-states. The former slogan “think globally act locally” has to be transformed in “both think globally and act locally”<sup>13</sup>. Production and social development require on the one hand some intact local and regional ecosystems (e.g. water) and on the other hand also intact global ecosystems (e.g. climate); some limits and tipping points on the local/regional and global level must not be exceeded.

So on the other side sustainability per se stresses local and regional action, adaptation and resilience. There is no recipe with one size fits all.

We cannot confine to have some nice niches or build some eco-socialist villages in autarky; “islands of sustainability” can be poles in the disseminating eco-social solutions but efficient permanent solutions have to be global or almost global. So there cannot be a strategic

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<sup>11</sup> Baumgaertner Stefan, Faber Malte, Schiller Johannes (2006): Joint Production and Responsibility in ecological economics. P. 339

<sup>12</sup> Wallis Victor: Socialism and technology – an sectoral overview. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 48

<sup>13</sup> Huan Qingzhi: Eco-socialism in an era of capitalist globalization bridging the west and the east. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 4



coexistence between sustainable regions and not-sustainable ones. In older words: “eco-socialism” in one land does make sense strategically

Non-linear, rather sudden developments, which could embrace disasters, are possible – maybe combined with “traditional” economic **crisis**. These probably will be “windows of opportunity” for progress or steps back.

The transformation from capitalism to socialism is a difficult task; the transformation from capitalism to eco-socialism even is more difficult. The climate crisis is the most important part of a multifaceted ecological crisis. Anyway a substantial ecological revolution can be only part of a larger social revolution.<sup>14</sup>

### **Growth or degrowth?**

The topic of growth has been discussed since the 70s in Europe. In mainstream economics and economic policy “growth” has become some mantra for the way out of crisis. On the other side in increasing part of environmentalists and also leftists are engaged in degrowth.

For example under the label of "socialism of the XXI century" the slogan "Socialists of the world unite: *Withdraw from growth*" was created. Aside from the difficulty to recognize what's the new or what would be the specific of the "socialism of the XXI century or what's the new about the "principle of equivalence” in this paradigm.

In Adler-Schachtschneider (2010)<sup>15</sup> „ecosocialism“ is associated with limits to consumption

A basic weakness in these discourses is that "growth" is too general. From a historical materialist method some things can or should grow, others not (for example production of weapons). The point is to change the structure of growth. This approach probably has more anticapitalist potential than the believe to hit capitalism blocking his intrinsic need for growth.

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<sup>14</sup> Foster Bellamy (2009): The ecological revolution – making peace with the planet. P. 263

<sup>15</sup> Adler Frank, Schachtschneider Ulrich (eds) (2010): Green New Deal, Suffizienz oder Ökosozialismus? Konzepte für gesellschaftliche Wege aus der Ökokrise

There is a huge discussion about improving resource productivity in many countries, the stress is on technology.

To put another **hypothesis**, paraphrasing Lenin: **the competition of systems will be decided by the ability to organize this radical improvement of resource productivity** in a comprehensive sense: Which system can mobilize innovation and participation, implement a radical decrease of emissions, simultaneously secure livelihood and structure of production and consumption?

### **Elements for a reformulation of historical materialism**

In former times frequently seen deterministic interpretations of strict “laws” of development towards socialism firstly are not at odds with reality and do not reflect dialectics, complexity and systems theory. Therefore interpretation in the sense of possibilities and probabilities basically are more adequate.

Remember the famous paragraph:

*„Auf einer gewissen Stufe ihrer Entwicklung geraten die materiellen Produktivkräfte der Gesellschaft in Widerspruch mit den vorhandenen Produktionsverhältnissen oder, was nur ein juristischer Ausdruck dafür ist, mit den Eigentumsverhältnissen, innerhalb deren sie sich bisher bewegt hatten. Aus Entwicklungsformen der Produktivkräfte schlagen diese Verhältnisse in Fesseln derselben um. Es tritt dann eine Epoche sozialer Revolution ein. Mit der Veränderung der ökonomischen Grundlage wälzt sich der ganze ungeheure Überbau langsamer oder rascher um.“<sup>16</sup>*

But what about “productive forces”?

Is it necessary to have a more comprehensive view of socialisation?

What about commodification on commons, property rights on the atmosphere?

And who is the revolutionary subject of these transformations?

### **Some incomplete to-do list:**

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<sup>16</sup> Marx: Vorwort *Zur Kritik der politischen Ökonomie*. (MEW Bd. 13, S. 9)

The detailed institutional design of eco-socialism still has to be developed.

The adoption of the value of nature and its diversity as prerequisite for future development has to be combined with the labour theory of value in a productive manner

A weak point is the identification of the subjects of the socio-ecological transformations (“the transformation agency”<sup>17</sup>): We can ask for power and domination, and inequality in the environmental space. We can see causations, impacts, and contributions for solutions differentiated along classes and other distributional criteria.

### **Not only to change the world but to protect it.**

The **ecological imperative** of Hans Jonas is: Act so that the implications are compatible with the permanence with genuine human life on earth<sup>18</sup>. Referring to Feuerbach Marx mentioned that philosophers interpreted the world in different ways but the point is to change it. The eco-socialist addition would be **not only to change the world but to protect it.**<sup>19</sup>

### **Literature:**

Adler, Frank, Schachtschneider, Ulrich (eds) (2010): Green New Deal, Suffizienz oder

Ökosozialismus? Konzepte für gesellschaftliche Wege aus der Ökokrise

Altvater Elmar (2005): Das Ende des Kapitalismus, wie wir ihn kennen, Münster

Amin, Samir/Arrighi, Giovanni/Frank, Andre Gunder/Wallerstein, Immanuel (1990):

Transforming the Revolution. Social Movements and the World System. New York.

Monthly Review Press.

Arrighi, Giovanni (1994). The Long Twentieth Century. Money, Power and the Origins of

Our Times. London.

Baumgaertner Stefan, Faber Malte, Schiller Johannes (2006): Joint Production and

Responsibility in ecological economics

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<sup>17</sup> Huan Qingzhi: Eco-socialism in an era of capitalist globalization bridging the west and the east. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 4

<sup>18</sup> Handle so, dass die Wirkungen deiner Handlungen verträglich sind mit der Permanenz echten menschlichen Lebens auf Erden.

<sup>19</sup> Sarkar Saral: Prospects for eco-socialism and technology – an sectoral overview. In: Huan Qingzhi (ed) (2010): Eco-socialism as politics – rebuilding the basis of our modern civilization. P. 217

- Fetscher Iring (1980): *Überlebensbedingungen der Menschheit* (Conditions of survival for humankind)
- Flechtheim Ossip K. (1983): *Perspektiven des Ökosozialismus* (Perspectives of eco-socialism)
- Foster Bellamy (2009): *The ecological revolution – making peace with the planet*
- Huan Qingzhi (ed) (2010): *Eco-socialism as politics – rebuilding the basis of our modern civilization*
- Huan Qingzhi: *Eco-socialism in an era of capitalist globalization bridging the west and the east*. In: Huan Qingzhi (ed) (2010): *Eco-socialism as politics – rebuilding the basis of our modern civilization*
- Martinez-Alier Joan (1994): *Ecological Economics and Ecosocialism*. In: O'Connor James: *Is Capitalism sustainable*, New York
- Martinez-Alier Joan (2002) : *The Environmentalism of the Poor, a Study of Ecological Conflicts and Valuation*. Cheltenham; UK
- O'Connor James (1988): *The Second Contradiction of Capitalism, Natural Causes, Essays in Ecological Marxism*, New York
- Ariel Salleh (ed) (2009): *Eco-Sufficiency and Global Justice: women write political ecology*. London & New York: Pluto Press
- Sarkar Saral (1999): *Eco-socialism or eco-capitalism? A critical analysis of humanity's fundamental choices*
- Sarkar Saral: *Prospects for eco-socialism and technology – an sectoral overview*. In: Huan Qingzhi (ed) (2010): *Eco-socialism as politics – rebuilding the basis of our modern civilization*.
- Shi, Tian. 2002a. *Ecological economics in China: origins, dilemmas and prospects*. *Ecological Economics* 41 (1), 5– 20.
- Wallis Victor: *Socialism and technology – a sectoral overview*. In: Huan Qingzhi (ed) (2010): *Eco-socialism as politics – rebuilding the basis of our modern civilization*.
- Wilkinson Richard, Pickett Kate (2009): *the Spirit Level: Why More Equal societies almost always do better*