Anarcho-Communist Planning

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Abstract

In recent years, the discussion about economic concepts different from both capitalism and central planning has gotten more interest, new ideas emerged, and old ideas were rediscovered. This paper presents a modern version of the economic concept of anarcho-communist planning, originating from the late 19th century. The proposed idea is based on the needs of the people while respecting the planetary boundaries. It rejects ideas like markets, work remuneration, and money or other universal units of account. This paper first discusses the shortcomings of markets, central planning, and previous post-capitalist economic approaches like Parecon and Commons-based organizing from an anarcho-communist perspective. Then, it explains the concepts, required structures, and tools supporting the proposed anarcho-communist mode of economic planning in detail.

1. Criticism of Market Economies

1.1. Criticism of Capitalism

There are many shortcomings of the currently dominant socioeconomic system, the nation-state- based neoliberal capitalism. The most obvious failure of capitalism is its inability to effectively counteract the climate crisis. Even though experts from various fields demand urgent action to drastically reduce emissions, political decisions are mostly based on (national) economic interests. Another failure of the current system is the injustices it creates as well as the discrimination it is based on. Racism and misogyny are not only part of the history of capitalism but inherent to its system: in institutions and mindsets. Also, the discrimination of minorities based on e.g. religion, sexual orientation, neurodivergence, or body type is a common pattern in capitalism. Discrimination is one but not the only reason for social injustices and unequal resource distribu-

tion, both on a local and global level. The alleged lack of willingness to achieve is often used to justify the injustices while it is based on inhuman systemic issues (see e.g. Nguyen's 2020 work).

These injustices combined with the political influence of huge corporations and economic lobby organizations undermine democracy by separating the sphere of economy from that of politics. As the economy has a huge impact on our lives, people should be involved in economic decisions, i.e. in the mode of production and distribution.

The third shortcoming of neoliberal capitalism is its psychological effects. It has been shown by Zeira 2021 and others that the ideology of individual responsibility, the permanent need to perform, and competition lead to isolation and existential fears (job loss, financial insecurity) and result in increased rates of depression and suicide. Societies should not optimize the well-being of economies, but the well-being of the people.

Also, recent and historic financial or pandemic crises showed that the idea of self-regulating markets is just a myth. The market often had to be rescued with tax money to prevent it from crashing. The government had to interfere to make sure, the most important services and goods could still be provided.

1.2. Criticism of Market Logic in General

The argument for markets was once that there is no other alternative for decentralized resource distribution. I argue that this is no longer true and will present an alternative in this paper. Capitalist market logic was already criticized above. As there are also socialist and even anarchist proponents of markets (e.g. mutualism), I'll list some of the problems of market logic in general here. Markets are based on the logic that those who contribute more, should get more. This makes markets inherently ableist as this will require special regulations for those who can't contribute at all or not enough to „make a living". Even if those regulations are very generous and al-

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2. Every person is free to decide how and where they want to live, as long as this does not restrict the freedom of others.

3. The basic needs of every person must be fulfilled.

4. All structures of concern are transparent.

5. There are no (national) borders and no warlike activities.

6. Planetary and regional justice (measured in satisfaction, with the minimum being raised) is aspired.

It is likely, that capitalism can't coexist under these conditions.

6. Conclusion

The anarcho-communist approach of decentralized economic planning presented in this paper enables everyone to participate in decisions they are affected by, including all aspects of the economy from consumption preferences and the distribution of scarce resources, over production processes, to organizational aspects and long-term resource distribution and development. These extensive participation possibilities exceed what is usually considered democratic participation. It is facilitated by networked forms of organization and supporting federated cybernetic information tools. This form of decentralization absorbs complexity at the local level while focusing on the needs of the people and fighting injustices, discrimination, and structures of domination.

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low people to have a good life, they are exceptions from the norm, making people feel like outsiders, depending on the generosity of society. Or as Goldsmith 1919 put it: „To give each proportionally to their work is, if you wish, a fair principle; but it is a lower type of justice, like the idea of rewarding merit or punishing vice."

In addition, market logic also requires to define what a significant contribution is, for which people will get rewards and what isn't. I.e. it requires the distinction of labor (you will get some form of payment or reward) and unpaid work. This is especially problematic for care work and art. E.g. is taking care of sick children, playing with children, or traveling to get inspired for a future piece of art work?

Consequently, the anarcho-communist perspective also rejects the idea of work remuneration, which often comes in combination with market-based economic proposals, no matter if it is based on money or tokens representing work hours. Regardless of whether the wage is calculated depending on education, experience, hours, or effort - there can never be a concept that is fair to everyone.

Another problem of markets is that they always tend towards inequality. People with more resources will be able to take higher risks than those with just enough resources to survive, giving the risk-takers a higher chance to get even more resources. Or as Apolito 2020 put it: „In the profit dynamics of markets an equitable wealth distribution is necessarily an unstable condition". Apolito also explains why decentralized organizations based on cooperation should be preferred over organizations based on competition from an information complexity point of view: competition breaks systems into isolated subsystems, reducing the complexity they can absorb.

Markets communicate the needs of the people only in an indirect and distorted way: Products have to perform well on the market instead of fulfilling needs (the production focuses on exchange value rather than use value, e.g. planned obsolescence). The product information is mostly reduced to a single number, the price.

More important information like the environmental impact or the production conditions is rarely communicated.

2. Criticism of Central Planning

Beer 1972 explains why only decentralized organizations can cope with complex environments: Applying the laws of cybernetics, he concludes that the complexity inherent in organizations or societies needs to be dealt with in some way or another. The top-down way is to attenuate the complexity radically, losing a lot of information so that a central leader can process the remaining information and make decisions based on that. This leads to domination, instability, and chaos for the entities of the system. The cybernetic way of dealing with complexity, and this is the one that Beer proposed, is to decentralize as much as possible. That way the complexity is absorbed by or encoded in the units of the system which can then self-regulate as best as possible. Only relevant information will be shared with other units in a way that everyone can still have an overview of the system as a whole and give feedback when needed.

Apolito 2020 cites the research by Shin, Price, Wolpert, Shimao, Tracey, and Kohler 2020 to show that larger societies that don't scale their informational complexity tend towards statist authoritarian forms and that scaling informational complexity tends to result in more egalitarian societies. Thus central planning should not only be rejected because it does not handle informational complexity well, but also because it is prone to technocracy, bureaucracy, and takeover by authoritarian forces. This is also true for democratically legitimated central planning approaches. One could argue that with today's technology, the information problem of central planning could be solved by having complex algorithms running on huge central computer clusters. While this might solve the issue of processing resources reasonably well (but not better than

changing their physical location. Nettlau 1909 explained panarchy like this:

"What is involved is merely a simple declaration at the local Office for Political Membership and without having to part with one's dressing gown and slippers, one may transfer from the republic to the monarchy, from parliamentarianism to autocracy, from oligarchy to democracy or even to the anarchy of Mr. Proudhon, according to one's own discretion."

Panarchy solves the "too big to fail"-problem by running multiple systems in parallel in the same region. Panarchy is also popular in market-liberal or so-called anarcho-capitalist circles as it takes the idea of competition without any restrictions to the level of political systems. Panarchy could lead to increased ableism and uneven distribution of care work, if those currently requiring less care would switch to competitive systems and switch back to cooperative systems once they are older and require more care. Injustices like this should be prevented.

A system based on panarchy is a meta-system that should define how the various systems interact with each other and how core values like freedom and solidarity can be maintained across all systems. This includes questions regarding the distribution of resources between the systems. While ideas of anarchism are often confronted with the question of how they will handle so-called "bad actors", meta-systems of panarchy will have to be resilient to "bad systems". From the VSM point of view, this is the same problem at another level. Decentralized systems tend to be more resilient to "bad actors" than centralized ones.

A planetary panarchist meta-system might need a minimal agreement for coexisting societies so that neither the planet nor certain societies are exploited or destroyed. The following is a suggestion for such a minimal planetary agreement:

1. The planet must remain permanently habitable for the living beings of all continents.

decide on measures to prevent worker shortages like a rotation for unpopular tasks or changes to the way the task is done to make it more enjoyable.

Decisions are taken as local as possible, involving only those affected by the decision. Decisions are announced in advance with the relevant information in the information system so that everyone has the time to get informed, research, and deliberate the arguments. Consensus decisions are preferred if possible (including the options of standing aside, trying a decision for a limited time, or implementing multiple solutions in parallel). However, the affected people can decide to fall back to majority voting if they want, making sure that minorities are not oppressed. This also works for decisions on a planetary level. The information system tools allow for decision preparation no matter where the involved people are located. If the discussions don't work well with too many people involved, it might be reasonable to pick some delegates, making sure that various regions and minorities are represented. Similar to coordination committee members, they should be rotated in case of longterm decision councils and they can be called back and replaced if they don't act in the interest of the people they represent.

5.6. Coexistence of Multiple Approaches

The ideas of decentralization and diversity of ways of living as well as economic systems have a long tradition in anarchist thinking (e.g. synthetic anarchism, the international federation of anarchists, or bolo'bolo). It is colonial thinking to assume one way of living and organizing fits everyone or one central unit can decide about the needs of everyone. As anarchists, we should not try to present a system with the pretension of being the right system for everyone. Some people might prefer to be ruled or to live in competitive economies.

Panarchy is a political philosophy that emphasizes an individual's right to choose their political and economic system without

decentralized organizations), it is neither desirable from the perspective of avoiding authoritarianism nor does it solve the complexity of human interactions: E.g. in the case of distribution of scarce resources, central distribution requires surveillance of the planned distribution and the state sanctioning individuals or companies trying to game the system. It will also lead to frustrated individuals who might not understand or disagree with the mode of distribution decided on by the state. In contrast, decentralized organization and decentralized distribution of scarce resources would require local transparency and neighborly social awareness, scandalizing overuse on the local level and anonymizing individual consumption by aggregation at supra-local levels. It would also result in higher approval of the mode of distribution as it would be decided on by those affected by the decision. Furthermore, on the local level, it's easier to understand why someone needs more than others as you might personally know people. Also, decentralized organization allows for the possibility of finding creative local solutions specific to the local problems which will reduce the usage of the scarce resource and could not be thought of when planning centrally.

3. Criticism of Low-Tech Self-Sustained Communities

The idea of going back to low-tech self-sustained communities as a model for the whole planet is genocidal because pre-industrialized production can't support the number of people living on Earth today. Promoting low-tech societies thus means promoting the survival of fewer, possibly eugenically selected humans.

The idea of self-sustained communities as a chosen way of life for a few, instead of a dogma for all, is however fully compatible with the idea of decentralized anarchist planning presented below.

Everyone should be able to decide for themselves the extent to which they use technology as a tool as long as it does not affect others.

4. Previously Proposed Concepts

Cockshot and Cottrell 1993 suggested using powerful computers and algorithms to conceive multiple central plans and let the public vote on the plans or decisions behind the plans. The proposal also features work-hour-based vouchers to buy consumer goods. This approach does not handle complexity well, due minimal involvement of the people and the central planning. Also, payment based on work hours is problematic as explained above.

Parecon as suggested by Albert 2003 and Hahnel 2021 and many other economic concepts stick to the idea of measuring and incentivizing work by paying something like tokens per hour, depending on the "effort". They claim to need this as a tool to calculate the quantity of needed goods (market clearing price) and to make sure unpopular work is done. While rejecting market socialism, their proposal creates market-like structures. I consider this unnecessary, over-simplified, and ableist. Instead, a transparent decentralized planning procedure could give those interested in the details the option to understand why some goods are scarce and others are not.

In Devine's 2002 concept of negotiated coordination, investment decisions and important input prices are planned and decided on by a board of stakeholders. Otherwise, this proposal is mostly a classical market economy with autonomous corporations and competition.

Laibman's 2002 idea of multilevel democratic iterative coordination, combines central and decentral aspects of planning, focusing on the center, which also sets prices.

actly what they estimated as their needs. Vegetable types not available at the regional level are again aggregated and communicated to the larger geographical network. Rare specialized medical equipment needed by individuals can be communicated in anonymized form by the local community directly to the production collective producing such equipment (similar to direct orders in today's economy).

Which key indicators to pick is up to the affected people, who also decide how detailed the collected data needs to be depending on the context and their preferences. They might even decide not to collect data at all. Key indicators are not only units of products or services, units of resources used, or units of climate-relevant emissions, they can also indicate general non-quantifiable environmental impact from low to high, work conditions during production, or how critical a product or service is to cover the needs of (some) people.

Regarding planetary boundaries and necessary actions to counteract climate change, specialized councils can suggest limits for emissions or other actions to take. There might be planetary agreements to follow such suggestions. The details on how to implement the suggestions should be decided on as locally as possible, taking into account the specific regional situation and planetary injustices between regions still resulting from the times of colonial and capitalist exploitation, which should be counteracted as well. E.g. there could be a planetary agreement to limit methane emissions to a specified amount. Regional councils would communicate their aggregated methane emission needs so that they can produce to fulfill the needs of the people in that area. Based on that data, the council can facilitate the decision on how to distribute methane emission quotas to the regions.

While there is no compulsion to work, neither via authorities nor via work remuneration, there might be transparent communication about worker shortages in some work collectives in the federated information system. If needed, the communities might

While transparency is important, the collection of data should not be usable as a tool of surveillance and control. Thus, the collection of data should be as decentralized as possible, with only aggregated information being passed to supralocal structures if needed. Not every good, every resource, or every hour of work has to be tracked as data. Every community can decide how much they want to track. A general rule of thumb might be that as soon as distribution feels unjust, it might be good to collect some data to get transparency and improve the just distribution. As there is no universal unit of account like prices, all data is collected in units that make the most sense for the use case at hand. In case of decisions, that affect larger regions or the whole planet, there will be an agreement on what and how to measure and which unit to use to standardize the communication. This does not only apply to the distribution of scarce resources but also the collection of data about the needs of the people. Due to privacy concerns, the needs of individual people should never leave the local community. They will be aggregated with other needs and anonymized if needed before communicating them to a larger network.

Some examples: Needs about bread could be communicated in kilograms and never need to leave the community if bread is produced within the community. Also, individuals don't have to estimate their bread consumption, the community can just use past consumption data. Individuals only need to communicate if they plan to consume drastically more or less. The same is true for basic care needs which could be communicated in hours. The needs for vegetables are also estimated from past usage and aggregated at the local level and then communicated to the regional network (as local as possible, except for the types of vegetables available in the community). Regional vegetable-producing collectives already know from past consumption and distribution data the rough amount of vegetables needed for the community. When distributed to the community the vegetables are put in a local distribution center where everyone can just take what they need, even if it is not ex-

Saros 2014 uses tokens as a tool for production planning, the distribution of goods, and as an incentive for good planning. This too has the downside of over-simplification. Additionally, tokens always come with the danger of creating markets. Saros' idea of registering needs at the level of individuals seems too cumbersome and isolating and has the potential for surveillance.

Vettese and Pendergrass 2022 suggest half-earth socialism, a central planning for scarce resources (considering the environment, using linear programming as a tool) and no universal unit of account (Neurath's calculation in-kind). They also emphasize the importance of decentralized planning (e.g. regions or local communities get to decide what to do with their budgets of scarce resources) but seem more leaning towards heavy centralization and a strong planetary government.

Another proposal, rejecting the idea of a universal unit of account is Commonism as described by Sutterlütti and Meretz 2023. In Commonism, the commons (i.e. work collectives) decide who they want to cooperate with. The danger of this approach is forming in-groups and forgetting about unpopular or marginalized groups. There is also no guarantee that important needs will be met (unless you manage to create a good network of cooperating commons). This concept might work for humans with good communication skills and no need for above-average care. Also, work councils deciding with whom to cooperate gives councils working on critical infrastructure a dangerously high accumulation of power. Commonism values the freedom of individual decision-making over solidarity. In contrast, the approach presented here focuses on the needs of everyone within the planetary boundaries by deciding about production and distribution in coordination committees. Products of work should not be considered the property of those who produce them but should be used by those who need them. This is a different mental model, which results in different behavior. Another problem of the original commonism

approach was that they did not have a concept of how to tackle the climate crisis with planetary measures.

As the idea of work collectives deciding how to distribute is also common among some strains of anarchism (e.g. mutualism). I'll use an example to further illustrate the problematic effects of this approach compared to the preferred approach of communities deciding: Person A needs an abortion. In the case of work collectives deciding, they ask the hospital workers to perform it. The workers could be hesitant for moral reasons, say they have more urgent things at the moment, or say they don't feel like working in the next weeks. Now, person A needs to convince them that their need is important. In contrast, in the case that the community decides about distribution relevant to them, it was previously decided, that if an abortion is requested it will be performed. There are enough workers scheduled to work in the hospital. Person A does not need to fight for their need. If both versions were implemented, maybe the "workers decide" version would end up being the same, the workers would not argue and just do it. However, there is a risk that they might say „no" and I would feel less comfortable asking them for an abortion if I knew that they could say „no". Also, even if both versions would end up being similar, the mental model behind them is different, which could have an impact on the behavior, and the "community decides" mental model leads to less tension.

5. An Anarchist Decentralized Planning Concept

Within the recent democratic planning discussion, the anarcho-communist idea of decentralized planning is rarely mentioned, even though it has a long history and modernized versions are still valid and discussed today. As the ideas presented in this paper are based on these concepts, the next section summarizes

tralization is one way to reduce the number of input parameters and thus increase the chances that the optimization can run in a reasonable time. To make it possible for everyone to be involved in upcoming decisions they are interested in and affected by, a decentralized information system is needed. It should be decentralized in a federated fashion, similar to the federation protocols of the fediverse, but better searchable. That way, everyone can subscribe to content and decisions they are interested in, e.g. their local community, their work collective, selected topics from their region, and a planetary topic close to their heart. Besides linear programming, there are many algorithms and tools already in use today that can be adapted to the task of decentralized planning including input/output analysis based on in-kind calculation including complex dependency chains and environmental impact using life cycle assessment (LCA), graph-based algorithms for supply chain and transport optimization, real-time big data analysis, and push notifications for changes that require immediate attention. Using these tools a cybernetic federated information system can be built, which allows for local autonomy as well as, networked coordination and feedback, going way beyond what was possible during Beer's experiments with CyberSyn.

The information system should provide background information for upcoming decisions as collected by the coordination committee or other volunteers and should be transparently accessible to everyone who is affected. The federated information system can also be used for the other planning tasks listed above like announcing consumption pattern changes, exceptional needs, and production changes and their impact on supply chains. The information system should also provide tools for decision-making, conflict resolution, data analysis, optimization, and simulation as easy- to-use software that is available to everyone who wants to do some investigation and planning of their own to propose ideas to the community. It should be a goal to democratize these tools, making them as transparent, understandable, and accessible as possible.

future consumption and production prognosis, and simulation of possible future developments. They keep the overview of possible resource and interest conflicts. For decision- making, they provide the relevant statistics, facts, and arguments and mediate the discussion and decision process. The community uses this information to decide on the distribution of scarce resources and resource usage for long-term development („investments").

That way, the monolithic task of planning is broken down into manageable subtasks, increasing the chances of successful complexity handling and meeting self-defined goals.

5.5. Tools and Process Requirements

Phillips and Rozworski 2019 have shown that the technology for planning economies with today's complexity is already available and in use in corporations like Walmart and Amazon. Their research also shows that transparency of resource flows e.g. in supply chains is vital to the success of planning. While Phillips and Rozworski focus more on centralized planning and technical requirements for decentralized planning are different, this still supports the feasibility of planning complex economies.

There are multiple reasons why decentralized planning is even more feasible than centralized planning: First, systems with central structures are less resilient to crises as they suffer from the „single point of failure"-problem, also known as „too big to fail" in economic discussions. Second, algorithmic complexity of planning algorithms like linear programming, which is used for optimization problems (e.g. optimal distribution of a resource to multiple industries), has slightly more than quadratic complexity. That means, that if the number of input parameters (resources and products that need to be included in the planning) increases, the computational resources needed increases in a quadratic fashion. Decen-

the economics-related concepts of classical anarcho-communism before presenting a more detailed modernized version.

5.1. Classical Anarcho-Communism

Classical anarcho-communists argued in the late 19th century and early 20th century for decentralization, abolition of states and law enforcement, abolition of private property, for distribution based on needs, and against work remuneration. Goldsmith 1919 on property: „the means of production cannot become the property of these organizations: they must only have the use of them" and on distribution and consumption, also in case of scarcity:

"Who will dispose of the produce of labor? These products must constitute collective wealth offered for everyone to consume, if they are immediately consumable goods, or offered for the workers' organization to use (if they are raw materials or tools). Individuals or organizations will draw from these stocks as they need them, and in case of insufficient quantities, after an agreement with other consumers and interested organizations. No-one truly owns these products, except the workers in distribution who will try to satisfy orders."

Kropotkin 1892 on rejecting work remuneration:

"A society having taken possession of all social wealth, having boldly proclaimed the right of all to this wealth — whatever share they may have taken in producing it will be compelled to abandon any system of wages, whether in currency or labor-notes."

And Goldsmith on the same topic:

"We reject therefore the idea itself of a wage; we dissociate the issues of production and of consumption, leaving between them only the link which results from the fact that the total quantity of produced goods must be indexed on the consumption needs."

These early anarchists also already had ideas on how to collect the information required for distribution based on need. Kropotkin:

„... but true and exact statistics must begin with the individual and mount up from the simple to the complex." And Goldsmith:

"...there must be some groups, committees who will concentrate the necessary statistical teachings. Their role must be strictly limited to that of purveyors of statistical data; the use which will then be made of this data does not concern them. They cannot emit any decree; ... The advice of these statistical committees is no more coercive than the information given by an architect, the advice of a dietician, a teacher, etc."

This is, by the way. exactly in line with what would later be called cybernetic principles (Beer 1972): Collect information at the lowest level and aggregate it for overview purposes to reduce complexity. Overview roles are only providers of information, they don't have any power over others.

Also, anarchism has always been about the plurality of ideas, a world of many worlds, the possibility of multiple (economic) models and ways of living co-existing next to each other (Nettlau 1909).

5.2. Post-Modern Requirements for Anarchist Economics

All of the mentioned ideas from the classical area are still valid (while not agreeing e.g. with Kropotkin's antisemitism and misogyny). Additionally, for the post-modern area, it's important to note that we should be skeptical of any solution presented as the holy grail. Proposals need to allow for a plurality of ideas as well as humans. Proposals can't be detailed blueprints, but dynamic ideas that keep evolving, always with the goal of reducing all forms of dominance and discrimination, being aware of privileges and intersectionality, and checking if the proposed ideas also work for those less privileged.

Today, there is also no longer any romantic belief in an automatic progress towards socialism or science as an unquestioned force for good. The tools and models we select for our economic

indicators are considered relevant is defined by the community or council planning and depends on the context. It could e.g. be the usage of scarce resources in units of the resource and the environmental impact of the happyness of the people. Key figures and calculation in-kind (Neurath) are more useful, informative, and intuitive than a universal unit of account which abstracts from and over-simplifies the matters at hand.

5.4. Localized and Functional Decentralization of Planning

The idea of decentralized planning is to spread the responsibilities to those who are affected and those who have the necessary information. This is similar to what Beer 1972 proposed as the Viable System Model (VSM). It creates networks of responsibilities in which nodes have specific functions and responsibilities and pass important information in aggregated form to each other. Similarly, in the idea of anarcho-communist decentralized planning, planning is not only spread to various levels of locality but also split into multiple tasks and functionalities:

- Consumer councils announce expected future changes in their consumption patterns (e.g. due to exceptional changes in the population), planned exceptional needs (e.g. building of additional houses), and emergency consumption needs (e.g. due to natural disasters).

- Production collectives plan the way they want to produce and announce resulting changes in required input resources and provided products or services. They also announce production impediments and emergency production breakdowns.

- Coordination committees collect information like past consumption and production numbers for data analysis,

to be watched carefully to avoid bureaucracy and dominance. Supralocal councils can be temporary for a specific purpose or permanent for continuous organization. They should follow similar principles as the coordination council on the local level: They provide information, transparency, analysis, research, and suggestions, and facilitate decision-making and conflict resolution but they do not enforce decisions on others. The people working as coordinators in councils should be rotated. This is close to the old idea of federated councils with delegates having imperative mandates, but less rigid, less regionally restricted, more networked, and dynamic. The tools section below has more thoughts on when direct participation of affected people in councils is possible (e.g. via the internet) and when it is more practical to rely on delegates. Delegates from the local councils can not impose an agreement on the local councils, i.e. the federation is no power structure. It is a structure of facilitation and coordination, while the ones to decide are still those affected by the decision (similar to the coordination committee on the local level). The internet is a powerful tool for federation. A federation does not have to consist of clearly defined geographical regions. It could consist of geographically or thematically overlapping networks.

Councils suggest economic plans, decided on by the affected communities. Thus, the networked councils produce many, many distributed economic plans, partly overlapping and coordinated as needed. Having some sort of plan allows for the freedom to know that our needs will also be provided for tomorrow and in the future. It also allows making longer-term plans for the regeneration of ecological systems or the development of infrastructure.

The plans don't have to be very detailed, they should be kept as simple as possible. For most things, future consumption can be estimated based on last year's consumption in combination with changed conditions (e.g. new agreements on the limited usage of scarce resources). Rough estimates are good enough. Plans are based on in-kind calculation of key indicators only. Which

planning need to be selected carefully, as they are not neutral and have an impact on mental models and the way societies evolve around them.

I defined five requirements as a basis for any envisioned economic proposal or an emancipatory future society in general:

The first two are the values of freedom and solidarity. Freedom means the absence of coercion, oppression, and discrimination. Freedom is the ability to fulfill one's needs, i.e., to develop and live a good life. Everyone should have the freedom to do what they want, as long as they don't limit the freedom of others. Solidarity means not putting one's own needs above those of others (future generations included) and reducing injustices. Freedom without solidarity results in privilege and injustice, it restricts the freedom of excluded groups or individuals. Solidarity without freedom is coercion. Therefore, freedom and solidarity must be in balance when it comes to the freedom of all.

The third requirement is to discuss how the care sector will be organized. If a utopian draft is only about the production of countable units (e.g. tons of steel) or if it is assumed that unpopular activities would somehow be done, then the care sector has not been considered. Is it implicitly assumed that women will continue to do this mostly invisible work on the side? Regardless of feminist motivations, any utopia must answer the question of distributing care work and unpopular activities without coercion if it is to pass the freedom and solidarity requirements.

The fourth requirement and acid test for utopias is the question of whether they also work in crises. Climate catastrophes and violent takeovers of power by authoritarian regimes can be played out as thought experiments. Crises have often shown that the capitalist system fails at the local level and must be rescued at the national or global level through massive interventions by states. Despite all this, capitalism keeps adapting to changing conditions and is seen by many as the best option - even in times of crisis. The utopia

under examination must therefore face the question of whether it would be the better option even in times of crisis.

The fifth and last requirement is for societies to be non-dogmatic. The utopia needs to allow for diversity and inclusion of minority groups. Diversity refers to lifestyles, preferences, worldviews, and origins. Dogmatic views are not always explicit. They can also consist of unstated and unquestioned assumptions. An example is the acceptance of the inequality between the global North and South without looking at the history of colonialism. "No dogma" does not mean, however, that any worldview is to be fully accepted. When it restricts the freedom of others and thus becomes dogma itself, a limit is needed.

5.3. Structural Requirements and the Proposed Mode of Organization

Any structures related to the economy should be as decentral, transparent, and dynamic as possible so that they don't mutate into static power structures. As shown by Apolito 2020 the informational complexity should be encapsulated in decentralized structures like networks. On a local level, the nodes of the network can for example follow this pattern:

1. Consumer councils organize around local neighborhoods or chosen families. They collect information on what is needed.

2. Production collectives are organized around various production processes and services. They provide information on what could be produced or which services provided.

3. Coordination committees consist of a few rotating delegates who facilitate and mediate between needs and production capabilities, coming up with multiple variations of possible plans.

There don't have to be decisions and agreements about everything. Within a defined scope, people get a feeling of what can just be done without any deliberation (e.g. based on some core agreements). Transparency can help to nurture trust for this mode of operation (do-ocracy). If decisions are needed, those affected by the decisions should be able to be part of the decisions. They don't have to decide everything as they can also trust others to make the right decisions but they could if they wanted.

There are no organizations like police, prisons, or military to enforce decisions. Agreements have a good chance of being acted upon as they were taken by those affected and not a remote authoritarian government. Thus, people are less alienated from the agreements. If some people don't respect the agreements, it might not be a big deal. However, if others are disturbed by their behavior, there will be a conflict resolution process. If this does not help or people refuse to take part in the conflict resolution, their behavior can be scandalized. Communities might also decide to separate from individuals who repeatedly cause harm and refuse to participate in processes to transform their behavior (community accountability).

Conflict resolution will become a standard process everyone is used to: resource conflicts, distribution conflicts, people hurting others, people trying to gain influence in decisions disproportional to the degree to which they are affected, people not following agreements, workspace conflicts, and many more. After getting used to self-organized conflict resolution, the processes will become more common and easier to digest.

While local organization is important for many reasons, it's not enough to sustain the number of humans living on earth. Cooperation across local communities and regions allows e.g. the planning of complex infrastructures and the production of modern technology which relies on the many different resources and complex supply chains. Additionally, the supralocal perspective gives some overview and improves distribution justice as well as resilience in case of catastrophes. Supralocal structures need