Closing the implementation and coordination gaps in agroecological policies in Zimbabwe

A Bibliographic Survey on Global Lessons

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Abstract (concept)

The thirteen principles of agroecology span the scientific, social policy and institutional landscape. The slow progress towards AEI can be traced in many cases, not to lack of policies, but effective coordination and implementation gaps. In this six-part bibliographic survey, we review the global landscape on **policy coordination issues** and related **policy theories of change**, **institutions for agroecology**, elements of **food systems transformation**, **agroecological transitions**, **farming innovations for agroecologically** sensitive production, and finally some examples from Africa. The review brings forward at least two critical gaps in the policy intention-implementation gap. The need for overarching agroecological policy theories of change to help coordinate individual policies as well as achieve inter-sectoral coordination.

The Need for Agroecology Policy Coordination

1. The challenge of policy coordination

https://doi.org/10.1080/25741292.2018.1437946

Most of the issues, like climate change, that require much involvement of the government, call for coordination. There is no clear-cut way of dealing with coordination concerns since its success or failure depends on the context, varying across countries and policy areas. Furthermore, some political systems may place more emphasis on coordination than others, depending on their approach. Policy coordination prevents unnecessary duplication, which could be more costly, and avoids contradicting steps among various organizations. For example, environmental agencies may want to reduce intensive agriculture for the sake of the environment, while the Ministry of Agriculture's target could be increasing productivity. These two moves could at some point be found contradictory despite having good political will. Moreover, policy coordination also ensures that the various changing needs and concerns, such as population growth and climate change, are well taken care of (Peters, 2018).

2. Policy failure and the policy-implementation gap: can policy support programs help?

https://doi.org/10.1080/25741292.2018.1540378

Hudson et al. (2019) identified the following causes of policy failure: unrealistic expectations, lack of proper coordination among stakeholders during the making and implementation of policies, and the unpredictability of the political system. Nicholls and Altieri (2018) discovered that the major challenge is the broadening of the gap between promising policies and their implementation towards solving realistic and urgent issues in agroecological transition. Implementation support was found to be crucial since the experiences of the front-liners are brought on board as they are more knowledgeable than national policymakers (Allcock et al., 2015) on the challenge of policy implementation gaps. Capacity building is important as it empowers stakeholders with skills and capabilities to ensure sustainability in countering future implementation challenges (Hudson et al., 2019).

3. Pathways for the Amplification of Agroecology

https://doi.org/10.1080/21683565.2018.1499578

Most of the research towards promoting agroecology focuses on social and policy aspects. The major challenge is practising the agroecological principles for soil, water, and biodiversity management to improve productivity and resilience. For agroecological economic sustainability, these principles have to be complemented by policies and harmonized market institutions (Nicholls & Altieri, 2018). **However, there is no single policy that fits all, hence combination of complementary policies is necessary to incentivize agroecological transition** (Nicholls & Altieri, 2018). Consequently, these policies can create unseen dependencies that may reduce the uptake of agroecology. For example, since credit access may encourage agroecological practices, it may result in more usage of agrochemicals. Nonetheless, there are effective policies that have proven to promote agroecology and Brazil's National School Feeding Program (PNAE) is of such kind. It brought about an economic incentive to small-scale farmers since the policy outlines that 30 percent of food that is procured for schools must be produced by these farmers (Wittman & Blesh, 2017).

4. Late bloomer? Agricultural policy integration and coordination patterns in climate policies

https://doi.org/10.1080/13501763.2019.1617334

The extent and degree to which policies are integrated are influenced by how levels of government coordinate (May et al., 2006; Peters, 2015; Tosun and Lang, 2017). Many Nationally Determined Contributions (NDCs) usually constitute agriculture (FAO, 2017). Inasmuch as ministries play a vital role in policymaking, the Ministry of Agriculture has its own political interests and

therefore does not participate in formulating climate policies because it is not consulted. Page (2003) argued that getting solutions that promote every ministry's agenda could enhance coordination between and amongst them. Making coordination look attractive to all the involved ministries is important (Peters, 2015), and if applied in this case, the involvement of the Ministry of Agriculture in making climate policies will promote the agri-climate idea (Schmidt, 2019).

Framing the Transition:Policy Theories of Change

1. Large Leaps / Punctuated Equilibrium Theory

https://resources.peopleinneed.net/documents/23-pathways-for-change-6-theories-about-how-policy-change-happens.pdf

Baumgartner and Jones (1993) hold that right conditions can lead to a huge change from the current situation, although these conditions don't necessarily guarantee change. These conditions can be achieved when: the existing methodologies are questioned in trying to define a problem in a different way or trying to get other aspects of it; there is involvement of different actors; and the problem at hand gets more attention from the public and media. When all of these happen simultaneously, then a large-scale change happens.

2. Coalition Theory/ Advocacy Coalition Framework

https://resources.peopleinneed.net/documents/23-pathways-for-change-6-theories-about-how-policy-change-happens.pdf

This theory suggests that individuals have basic or primary beliefs which are common to all of them. It suggests that the knowledge of the urgency of the matter at hand, its cause and the people's ability to provide a solution is common to them all. As a result of shared concerns, coordination among these people would bring about policy change. This theory assumes that it is almost impossible to change policies if the group proposing the change doesn't have power (Sabatier & Jenkins-Smith, 1993; Sabatier & Jenkins-Smith ,1999).

3. Policy Windows/ Agenda Setting Theory

https://resources.peopleinneed.net/documents/23-pathways-for-change-6-theories-about-how-policy-change-happens.pdf

According to Kingdon (1995), whether a matter gets attention or not depends on how the problem is defined, the kind of proposed solutions to the problem and the political environment, and each of these operates independently. The theory suggests that problem definition determines the urgency or priority it receives. People's values and beliefs determines their perceptions of problems.

4. Messaging and Frameworks/ Prospect Theory

https://resources.peopleinneed.net/documents/23-pathways-for-change-6-theories-about-how-policy-change-happens.pdf

Tversky and Kahneman (1981) research revealed that people make choices depending with how the options were framed or presented. Consequently, these choices can be inconsistent- can be of less benefit or riskier than anticipated- depending with the available information.

5. Power Politics/ Power Elites Theory

https://resources.peopleinneed.net/documents/23-pathways-for-change-6-theories-about-how-policy-change-happens.pdf

The theory suggests that the power to influence policy change is held by the elites who are always a handful. They may consist of the politicians, leading professionals, religious leaders, senior civil servants and leaders of mass organisations. Therefore, identifying the right people who have the necessary influence for the particular policy matter and building rapport with them is very important to the process of policy change (Domhoff, 1990; Mills, 2000).

6. Grassroots/ Community Organizing Theory

https://resources.peopleinneed.net/documents/23-pathways-for-change-6-theories-about-how-policy-change-happens.pdf

In his book Rules for Radicals, Alinsky (1989) challenges the power elites theory by proposing that power is dynamic and can therefore change, it is not just in the hands of the elites only. Supporters of this theory believe that the affected people, through collective action, can create power. Such effort is usually directed towards changing the existing policies (Alinsky, 1989).

7. Neo-institutional Theory

https://doi.org/10.1093/bjsw/bcz081

According to this theory, institutions do influence political and policy outcomes such that examining past contexts and events can give a reason for the failure or success of a policy change (Skocpol, 1995; Hall and Taylor, 1996). Historical institutionalists explain institutional and policy change as being path dependence. This means that current policy developments are influenced by what policymakers established in the past. This path is often rigid and therefore, any subsequent policy changes can't divert from it but can only be built on it. However, some scholars argue that major disruptions could lead to major institutional hence policy changes, away from the path, but would eventually stabilize (Koning, 2016).

8. Power Politics/ Power Elites Theory

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9. Resources Mobilization Theory

https://doi.org/10.1093/bjsw/bcz081

This theory holds that policy changes are possible with social movements consisting of mass members. Furthermore, policy change requires collective action and therefore it involves working with communities on the ground and helping them form or join groups. This theory suggests that these movements are mostly shaped by political opportunities and challenges around them. The movements bring together and use resources and professional expertise to ensure success in changing policies (McAdam, 1999; McCarthy and Zald, 1977).

10. Interdependent Power Theory

https://doi.org/10.1093/bjsw/bcz081

This theory proposes that disruptions from an uncooperating social movement can cause changes in policies. However, exercising this kind of power is not so easy because it is usually characterised by the breaking of rules and regulations. This theory contrasts with the resource mobilization theory in that it involves disruptions whereas the latter involves good organization. These social movements defy the status quo causing the power elites to concede and give in to their demands. This is not the case with resource mobilization theory as social movements seek the expertise of elites amicably. Furthermore, this theory is mostly applicable to the marginalised groups (Piven, 2006).

The Bog Picture:Institutions for Agroecological

1. Institutionalizing Agroecology in France: Social Circulation Changes the Meaning of an Idea

https://doi.org/10.3390/SU10051380

Bellon and Ollivier (2018) demonstrated that the agroecological idea varied in its definition across educational, civic, scientific, policy and economic fields and how this variation affected the institutionalisation of agroecology in France. They defined institutionalisation as the process of making collective action feasible through connections and liaisons between different actors towards a shared concern. This paper concluded that institutionalization of agroecology resulted from the following: presence of actors who had been working in the South; differences between actors and meanings of agroecology; and activities to promote discursive strategies.

2. Ruptures in the Agroecological Transitions: Institutional Change and Policy Dismantling in Brazil

https://doi.org/10.1080/03066150.2022.2055468

The implementation and institutionalisation of policies supporting agroecological transition in Brazil, for example, the Brazilian National Plan for Agroecology and Organic Pro-duction (PLANAPO), has of recent gained international attention (Borsatto, Souza-Esquerdo, & Duval, 2022). However, the introduction of a policy paradigm as a result of political changes brought about a dismantling of some of the existing policies whose support towards agroecological transition had yielded meaningful results (Niederle et al., 2022). Just as Bellon and Ollivier (2018), this study recommends the creation of relationships and associations that would promote the reformation of institutions advocating for agroecological policies.

3. Agroecology and the Metropolitan Biopolitics of Food in Cape Town and Johannesburg

https://doi.org/10.1002/uar2.20010

The impoverished and food-insecure populations of South African metropoles are a growing concern, and studies reveal that any serious agroecological transition depends on the willingness and means of the state to regulate food systems (Collier & Lakoff, 2015). This dependence relies on premeditated discussions between the government and agroecological movements. Kroll (2021) revealed that the capability of the state to foster agroecological transition is hindered by the disintegration of institutional structures, which is one of the biopolitical techniques to impact the behavior of the population. The study argues that these institutions are full of bureaucracies and is in agreement with (Govender & Reddy, 2015). Food security is under the jurisdiction of national, provincial, and local departments, resulting in priority competition. Moreover, locally, this mandate is left to poorly funded departments that are understaffed and full of political uncertainties. This eventually limits coordination efforts between the levels of governance.

4. Sociotechnical Context and Agroecological Transition for Smallholder Farms in Benin and Burkina Faso

https://doi.org/10.3390/agronomy10091447

This review, which covered two countries—Benin and Burkina Faso—sought to find out the political, economic, individual, institutional, and social factors influencing agroecological production in these nations. The study revealed that regional agricultural policies significantly influence national policies. These two countries, being members of the Economic Community of West African States (ECOWAS), have agricultural policies influenced by 'The Agricultural Policy of the Economic Community of West African States' (ECOWAP) (Salifou, 2020). Although these regional policies strive to avoid duplicating efforts in pursuing shared objectives (Salifou, 2020), they don't support agroecology. ECOWAP, for example, prioritizes intensifying agriculture and the intensive usage of chemical inputs (CEDEAO, 2006), and its influence on the formulation of national policies may result in a lack of institutional support for agroecological activities. Despite inadequate support, agroecological initiatives in Burkina Faso and Benin are developing and diversifying and are led by farmers' organizations, NGOs, and research and training faculties. Furthermore, the formation of the Alliance for Agroecology in West Africa aimed to coordinate various stakeholders in the agroecological transition (Tapsoba et al., 2020).

Elements of Agroecological Transition

1. Understanding Farm Diversity to Promote Agroecological Transitions

https://doi.org/10.3390/SU10124337

The study was conducted on farms located in Zona da Mata, Minas, Brazil, featuring a diverse range of farmers. Over the past 30 years, various stakeholders have been engaged in agroecological transitions in this region. Brazil is often linked with negative externalities such as social exclusion and rural poverty (Reydon, Fernandes & Telles, 2015). Existing evidence indicates that the progress of agroecological practices is contingent upon farmers having secure land rights (Rosset, 2013).

The study delved into the diversification of farms and its implications for agroecological transition. The findings revealed that farmers' management techniques, practices, and principles exhibit variations during agroecological transformations. The acknowledgment of peasant information is crucial in supporting agroecology. Agroecological farmers were found to be affiliated with networks comprising NGOs, farmer's organizations, and universities. The study suggests that merging quantitative and participatory approaches can yield more accurate and meaningful assessments of agroecological transformations. Additionally, agroecological farms have the potential to provide a variety of ecosystem services, as they are associated with increased crop diversity (Teixeira et al., 2018).

2. Exploring barriers to the agroecological transition in Nicaragua: A Technological Innovation Systems Approach

https://doi.org/10.1080/21683565.2019.1602097

The recent institutionalization of agroecology into some countries' national policies can be seen as a step towards agroecological transition (Bacon et al., 2014). Studies have identified technological, political, and financial factors that either support or hinder agroecological transition, but there has been limited analysis of their interactions (Silici, 2014). This paper aims to address this gap by examining the progression of agroecological systems through a set of actors and institutions that interact in the field of technology, thereby contributing to the creation, circulation, and application of innovative technology—a system referred to as Technological Innovation Systems (TIS). This approach was employed to identify barriers to the diffusion of agroecology in Nicaragua.

The findings indicate that some hindrances to agroecological transition include policy mismatches, insufficient capacities and resource mobilization, and the inadequate development of markets. These factors weaken entrepreneurial opportunities and experimentation (Schiller et al., 2020).

3. Diversification supports farm income and improved working conditions during agroecological transitions in southern Brazil

https://doi.org/10.1007/s13593-021-00688-x.

The study aimed to investigate the impact of farm management practices on income and working conditions of farms at different stages of agroecological transition. Indicators of income, working conditions, and ecological management were assessed in both agroecological and conventional tobacco farms. The study revealed higher yields in diversified agroecological farms compared to their counterparts. This finding aligns with the results of Ponisio et al. (2015) and Dainese et al. (2019), who observed a positive relationship between farm diversification practices and productivity. In cases where sufficient support systems and policies were in place, there was potential for improved working conditions and increased profits, leading to higher household income in farms undergoing agroecological transitions. This improvement was attributed to reduced costs and access to diversified markets (Stratton, Wittman & Blesh, 2021).

4. Farms in transition: agroecological farming giving families an edge in the face of declining agricultural productivity and climate stress in Bikita, Zimbabwe

https://doi.org/10.1080/21683565.2022.2107596

The paper sought to explore the ways in which farmers in Bikita, Zimbabwe, engaged in agroecological farming. These farmers were characterized by a lack of resources, relying on the natural environment, local information, and social networks. Moreover, crop diversity, agroecological techniques, and income from primary sources distinguished these farmers from their counterparts. These farmers recognized that **crop diversification led to improved food and nutrition security**, aligning with the findings of Mango et al. (2018) and Waha et al. (2018). Additionally, agroecological farmers employed sustainable irrigation practices, reducing environmental degradation, increasing productivity, and conserving water to a greater extent. However, the study

identified the main challenge facing these agroecological farmers in Bikita as inadequate capacity to sustainably adhere to agroecological principles. Furthermore, existing support mechanisms such as institutions and policies did not recognize agroecological farming, leading to constant resistance (Mapfumo et al., 2022).

5. Agroecological transitions to more sustainable food systems

https://doi.org/10.1080/21683565.2015.1130765

Gliessman (2016) identified five levels of agroecological transition. The first step focuses on **improved resource efficiency** by reducing or completely eliminating the use of costly and environmentally degrading inputs. The second level is referred to as **input substitution**, whereby external input-intensive and environmentally degrading products and practices are replaced with those based on natural products and are more environmentally friendly, for example, organic farming. However, the agroecosystem at this level remains unaltered and therefore is very likely to face the same problems encountered in levels one. While levels one and two are incremental, levels three to five are transformational (HLPE, 2019).

Level three involves **redesigning the agroecosystem to eliminate the recurring problems** in levels one and two. This would include practices like agroforestry and multiple-cropping. Level four encompasses **reconnecting producers and consumers through farmers' markets or fair trade in food products**, resulting in social equity and responsibility. Lastly, level five builds a new global food system based on **participation, localness, fairness, and justice**. This level is no longer about transitioning but transforming.

6. Channels of Labour Control in Organic Farming: Toward a Just Agroecological Transition for Sub-Saharan Africa

https://doi.org/10.3390/land9060205

The assumption that agroecological farming is **more fulfilling** than conventional farming, based on the independence of workers, requires reconsideration. This is because most existing labor channels portray farm laborers as technical demonstrators (Sachet et al., 2021) rather than drivers of change. This result is due to the implementation of organic standards that are not properly coordinated and reliance on foreign aid. Pressure on the laborers is further worsened by deteriorating climatic conditions and the fact that the Senegalese agricultural sector has been neoliberalized. The study suggests that agroecological initiatives should be tackled more holistically by institutionalizing safeguarded markets. This should happen even as farmers participate in governing the agroecosystem, establishing contractual agreements such as fair trade and organic certifications, and gaining access to land and other natural and productive resources.

Furthermore, engaging in a participatory approach in creating agroecological knowledge while considering peasant information would also play a role in agroecological transitioning. This is in agreement with Teixeira et al. (2018), who discovered that recognizing peasant information is fundamental in supporting agroecology. **Moreover, advocating and politicizing agroecology through NGOs and farmers' associations could also be a step towards a just agroecological transition in Sub-Saharan Africa** (Bottazzi et al., 2020). Making strong political choices and negotiations is unavoidable when it comes to agroecological transitioning (Côte et al., 2019).

Côte et al. (2019) suggest that social science research is crucial in understanding and strengthening coordination among actors towards innovation. Additionally, research is important in complementing existing knowledge. Just as Teixeira et al. (2018) suggest that a better understanding of farm diversity promotes agroecological transition, so does Côte et al. (2019) emphasize research efforts towards understanding biodiversity-related biological regulation mechanisms. Côte et al. (2019) also propose new performance indicators to capture the contribution of these transitions to sustainable development goals and to measure the ability of the applied systems to reduce inequalities and create employment opportunities. Sachet et al. (2021) propose that, **to promote agroecological transition, the scope of agroecological research in addressing the processes of these transitions in Africa needs to be broadened using participatory action research and other participatory and empowering approaches.**

7. Collectives address gender inequities in India's agricultural sector.

In India, women-run farms face unequal access to productive resources such as land, labor, and inputs due to poverty and unequal distribution of resources as a result of gender discrimination. Formation of **women-only** farming groups has helped alleviate this problem through labor-pooling, collectively speaking against exploitations and sharing capital investments (Agarwal 2010). Support from NGOs has seen these women groups purchase or lease land to improve food security through agroecological practices. Such inclusivity has led to a change in food systems beyond small-scale farms (Agarwal and Herring, 2013)

Food Systems Transformation (as a transitional pathway)

1. Transforming food systems with agroecology

https://doi.org/10.1093/ajcn%2Fnqab315

Majority of those who advocate for food systems transformation agree that it has to promote availability, accessibility, affordability of a sufficient, nutritious, desirable, and safe diet for the population (Fanzo et al., 2021). Such should come from resilient and sustainable food systems (von Braun et al., 2021). Availability means that staple foods rich in nutrients are available for everyone and as they efficiently move along the food chain, they are made more accessible to people. There needs to be a change in eating behaviour by embracing more healthier diet options which should be more affordable and sustainable with food system transformation (Fanzo et al., 2021 and Kennedy et al., 2020).

2. Research and Innovation as a Catalyst for Food System Transformation

https://doi.org/10.1016/j.tifs.2020.09.021

Boer et al. (2021) conducted a study on research and innovation as a catalyst for food system transformation. The paper provided insights into the complexities in food system transformation, the kind of research and innovation required for food system transformation, the challenges of current research and innovation strategies, and connecting food research and policy. The complexities in food system transformation call for the development, implementation, and evaluation of integrated governance strategies. **Multi-level governance is necessary to develop integrated food policies that can alleviate the negative trade-offs and, at the same time, increase collaborations between diverse sectors and policy domains** (Moragues-Faus et al., 2017; Parsons & Hawkes, 2018;). The paper suggests a need for **transdisciplinary research approaches** that bring together both academic and non-academic actors whose combined knowledge (Luederitz et al., 2017) helps in understanding systems for change implementation (Fazey et al., 2018). In addition, this approach incorporates underrepresented actors and their perceptions (Abson et al., 2017). Strong R&I frameworks based on holistic and participatory approaches involving all stakeholders may help to identify opportunities but also vulnerabilities nested in the system, which are vital starting points from which to formulate resilience strategies (FAO, 2014).

3. Food systems for sustainable development: proposals for a profound four-part transformation

https://doi.org/10.1007/s13593-018-0519-1

Most agricultural policies focus on food supply**,** and this paper suggests that the policies should also align with the 2030 Agenda for Sustainable Development. Caron et al. (2018) proposed a comprehensive food system transformation. The first part is related to **food consumption behavior**, which requires support through advantageous food ecosystems for its sustainability (HLPE, 2017b). The second part of the transformation included the support of inclusive, nutrition-sensitive agricultural production, processing, distribution, and marketing, and sustainable food value chains. Thirdly, the transformation was supposed to deal with climate change by employing Climate-Smart Agriculture (FAO, 2013) to reduce emissions of greenhouse gases (Lipper et al., 2014). Last but not least, the transformation was to foster a reawakening of rural territories so that people are empowered to develop their visions and implement useful activities toward sustainable development. This would definitely result in a food and nutrition-secure society, creation of decent jobs, steady economic growth, and a decrease in community conflicts (Mercandalli & Losch, 2017).

4. One size doesn't fit all: regional differences in priorities for food system transformation

https://doi.org/10.1007/s12571-021-01222-3

A study by Dengerink et al. (2021) shows that different regions have different priorities and strategies concerning food system transformation**.** In the Near East and Latin America, food safety and sustainability are the prioritized challenges, respectively. While food availability is the most critical challenge in East and Southern Africa, the Asians in Asia identify nutritional quality as the most urgent food system challenge. However, the affected groups were found to be similar across the regions: small-scale farmers, women, and low-income cadre. The strategies adopted to resolve these challenges also vary across regions. Increasing productivity is perceived to be the game-changer for **food availability**, just as making healthy diets accessible addresses the nutritional needs of the population (Dengerink et al., 2021). However, recent developments in food system transformation focus on those strategies that bring about availability and access to healthy diets (FAO, 2020; IFAD, 2021), resilient food systems (Béné, 2020; De Steenhuijsen et al., 2021; Savary et al., 2020), and a change in consumer behavior (Webb et al., 2020; WEF, 2020). In addition, they propose a combination of social and technical innovation as another strategy to effect a transformation in food systems (Barret et al., 2020; Pereira et al., 2020; Reardon et al., 2019).

5. Realizing Resilient Food Systems

https://doi.org/10.1093/biosci/biw052

Schipanski et al. (2016) outlined several strategies that together enhance the resilience of food systems across levels. The first strategy is the integration of social justice and gender equity into food systems transformation. This is because of the contribution of women in food production and ensuring the nutritional needs of their families. This strategy would, therefore, enhance food security. The second one involves replacing the use of external chemical inputs in farms with ecological processes. This would ensure sustainability (Godfray & Garnett, 2014; Ponisio et al. 2015) through the restoration of biodiversity and ecosystem functionality. The third proposed strategy is regionalizing food distribution linkages. Such diversification will ensure little to no disturbances of food availability in the occurrence of shocks. In addition, such regionalization could also increase innovation (Ostrom, 2010). Although still on a small scale, the Deccan Development Society (DDS) and women's groups in India have community grain bin initiatives to cushion the community against disruptions in distribution and production systems (Agarwal 2010).

More emphasis on food productivity has exerted pressure on the use of resources (Steffen et al. 2015). Addressing this challenge could mean that agricultural policies be informed by goals of the public health sector, hence to some extent, human behavior. Such an approach pays attention to the type of food produced, by whom, and for whom, which results in both increased productivity and human health (Schipanski et al., 2016). For example, in supporting the integration of agroecology and human health in Malawi, through the Soils, Food, and Healthy Community Project (SFHC), farmers tested the effectiveness of intercropping legumes as an alternative to external fertilizers (Msachi et al. 2009).

Africa focused work on Agroecological Transformation of Food Systems

1. Farmers' perceptions and adoption of agroecological practices in the Central-North region of Burkina Faso

https://doi.org/10.5281/zenodo.7528396

Elisabeth and Martin (2022) carried out a study on the effects of perceptions on how farmers in Burkina Faso adopt and intensify agroecological methods. The major goal for households in Burkina Faso is to meet their food needs (Sawadogo et al., 2022), which is often not easy to meet due to poverty and unfertile soils. The research found out that farmers view agroecology as a means to increase food adequacy. In addition, the experience of farmers reinforced agroecological practices. However, it was discovered that agroecology was less practiced in large cultivated areas. The study suggested that in promoting agroecology in Burkina Faso, it is important to emphasize on the ability of agroecological practices to meet the food needs of the population since that it is what their goal is.

2. Agro-Ecology and Water Harvesting in Zimbabwe

https://afsafrica.org/wp-content/uploads/2019/04/water_harvesting_zimbabwe.pdf

Even though maize is the staple crop for Zimbabwe, it is dependent on rain which makes it highly susceptible to droughts. Efforts by the government to integrate crops and livestock have not been successful due to the existing land use structures that are not flexible. However, a case study done on one of the farmers revealed a success story of adapting agroecological practices. The farmer discovered ways of harvesting and controlling water in his land and in so doing, he not only controlled soil erosion but also ensured that every rainfall drop was used maximumly. Furthermore, the farmer planted both indigenous and exotic trees, employed intercropping and crop rotation techniques. For the sake of sustaining nitrogen levels in the soil, he incorporated legumes. Consequently, the farmer witnessed an increase in the productivity and resilience of his farm (Oakland & AFSA, 2019). This shows the efforts towards agroecological transition.

3. Agroecological Training on Biofertilizers Improves Women's Livelihoods in Togo

https://afsafrica.org/wp-content/uploads/2020/12/yve_compressed.pdf

Increased use of chemical fertilizers, climate change, and unsuitable agricultural practices have depleted the soil of its fertility over the years. Farmers in Kpélé, South West of Togo, have slowly witnessed a decrease in the quantity and quality of yields due to poor soil fertility. In 2004, the Young Volunteers for the Environment (YVE), African Institute for Economic and Social Development (INADES), and the National Institute for Agricultural Training stepped in to train local farmers on the use of biofertilizers. They particularly promote sustainable agroecological methods through women's groups. Replacing chemical fertilizers with biofertilizers has proven to be sustainable, effective, and cost-effective. This has brought about food independence and security, receiving overwhelming response and support from the locals. Therefore, combining agroecological practices with functional institutions and community efforts is necessary.

4. Tackling the Issue of Land Rights as a Pathway to Food Security in Uganda

https://afsafrica.org/wp-content/uploads/2021/01/esaff_compressed.pdf

A case study conducted in Adjumani and Amuria Districts of Uganda revealed that women only had secondary rights to the use of land. Lack of information concerning their rights resulted in their vulnerability to land grabbing. It was realized how unlikely it was for these women to practice sustainable agroecological methods. Eastern and Southern Africa Small Scale Farmers Forum (ESAFF) and Oxfam have been educating and equipping women farmers on the importance of securing access to their land. During the study, one of the respondents had this to say, "If I don't own the land, why do I invest time in improving or protecting the soil? They will take it away from me anyway." Therefore, gender equality in land rights has proven to promote agroecological practices, hence increased productivity and food security, since ownership comes with independence in decision-making. This study demonstrates the role of institutions in advocating for land rights, hence promoting agroecological transition.

5. Bringing Life Back to the Land: Zimbabwean Farmers Revive Stagnant Farms through Agroecology

https://afsafrica.org/wp-content/uploads/2020/11/zimsoff-2.pdf

This study revealed that poor livestock management in Shashe farm led to soil erosion. Since 2010, the Zimbabwe Smallholder Organic Farmers Forum (ZIMSOFF) and the Association of Zimbabwe Traditional Environmental Conservationists (AZTREC) have been working with farmers to revive and make Shashe farm arable land. Training farmers on how to manage livestock has made the livestock an asset rather than a burden. In addition, livestock manure has been embraced as a biofertilizer, leading to increased productivity and cost-effectiveness. The use of upland and downland water conservation methods has made farming possible even in dry seasons. Intercropping has improved the nutrient cycle of the soil, hence more yields. Furthermore, agroecology was found to create community resilience through the involvement of the undervalued workforce and promote gender equality. This study revealed how collective action through institutions can promote agroecological practices.

6. Strengthening Harvests through Soil and Water Conservation Practices in Tanzania Highlands

https://afsafrica.org/wp-content/uploads/2020/12/sua.pdf

Makete region, located in the South-West of Tanzania, is characterized by diverse temperatures and heavy rainfall. Agriculture is the main livelihood of the locals in the region who grow pumpkins, wheat, beans, potatoes, peaches, apples, and bamboo. The heavy rainfall damages harvests and causes environmental degradation. The Department of Agriculture in Makete has led the locals in adopting agroecological practices to address the situation and produce adequate food. Digging trenches and planting grass along the ridges ensure that water is used effectively, and livestock get fodder. The harvest is no longer damaged by running water, as the farmers are working with, not against, nature. Over time, more farmers have adopted these practices due to the success of those who have already implemented the methods. The project has proven successful; however, its expansion to other places like the Southern Highlands of Tanzania, with the same terrain as Makete, is limited by a lack of funding (Silungwe, 2020). This study is an example of what is feasible when the whole community embraces practices that enhance agroecological transition.

7. Rural Women's Associations and Sustainable Agriculture in Casamance, Senegal

https://afsafrica.org/wp-content/uploads/2019/04/women_association_senegal.pdf

Women farmers in Casamance face various constraints, including lack of access to capital, illiteracy, lack of inclusivity in national agricultural policy formulation, and pressure by the government and private sector to incorporate farming techniques that involve hybrid seeds and associated inputs. Women, therefore, form women groups and associations, as part of their community efforts to find solutions to their challenges. Consequently, women who could not access capital can now get grants, enabling them to farm on large farms and engage in value addition to their products. They have also lobbied for inclusion in district councils and local institutions to participate in formulating agricultural policies (Oakland & AFSA, 2019). This study portrays an example of how policy coordination and collective action through institutions can accomplish significant results

8. Combating Climate Change with Agroecology in Benin

https://afsafrica.org/wp-content/uploads/2020/11/cipcre.pdf

The use of chemical inputs has, for a long time, drained the soil of its moisture and nutrient content, hence its fertility. As a result, food insecurity crops in. Funded by Bread for the World (Germany), the Project for Adaptation to Climate Change (Pada-Clim-Benin) has teamed up with farmers to discover sustainable farming techniques that are resistant to climate change, bringing about prolonged droughts. The project targets family farms and trains them on crop rotation techniques, how to make and use biopesticides and biofertilizers, water conservation for dry seasons, and agroforestry in a bid to increase productivity. The fact that women farmers are the principal actors in the project ensures gender equality (Zossou, 2020). This study is a successful example that agroecological transition is possible amidst climate change and could offer a solution to the same.

9. The role of institutions in food system transformations: lessons learned from transdisciplinary engagements in Ethiopia

https://doi.org/10.1080/26395916.2022.2146753

This study's focus was on Multi-purpose Cooperative Institutions (MPCI), which are community-based and come in handy in supporting small-scale farmers. The goals of MPCIs include ensuring sustainable ways of addressing food insecurity, increasing the production of cash crops and food, and promoting the sustainable management of resources. They provide an avenue through which various stakeholders interact to come up with hybrid initiatives. These institutions are characterized by a bottom-up network system, which makes it easier for members to identify and collectively tackle constraints like labor shortage. They also distribute agricultural inputs and promote the best farming techniques in the bid to enhance food security. However, their operations and activities are hindered by elites and government agencies whose influence on the food system transformation is much more (Manlosa et al., 2022). This study, therefore, confirms the importance of institutions in the transformation of the food system.

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