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Taskforce Report

Focus countries:

Ethiopia, Germany, South Africa, Ghana,
Senegal, Ethiopia, Serbia & Finland

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Introduction

This report consolidates the findings of four thematic taskforce studies conducted under the ERASMUS Virtual Exchange program, focusing on agriculture and rural development education and training across six countries: Ethiopia, Germany, South Africa, Ghana, and Senegal. The four taskforce themes are:

1. Career guidance in agriculture and rural development education and training
2. Entrepreneurial mindset in agriculture and rural development education and training
3. Twin transition—digital and green innovation—in agriculture and rural development education and training
4. Intercultural dialogue and civic participation in education and training

The combined analysis aims to provide a holistic understanding of the opportunities, challenges, and best practices that shape youth education, employability, and active participation in agricultural and rural development sectors. By examining multiple dimensions—from career pathways and entrepreneurial skills to sustainable innovation and intercultural competencies—this report highlights synergies between national strategies, institutional initiatives, and international collaboration.

Across the focus countries, the studies reveal common challenges such as limited rural access, skills mismatches, and the underrepresentation of youth in agricultural decision-making. At the same time, promising innovations emerge: digital platforms for career guidance, entrepreneurship-focused curricula, green and digital transitions in agricultural practices, and intercultural programs that foster civic engagement and collaborative problem-solving.

This synthesis is intended to guide policymakers, educators, and institutional partners in designing integrated, context-specific interventions that strengthen education, enhance employability, and promote sustainable and inclusive rural development. By leveraging lessons from both mature and emerging systems, the ERASMUS virtual exchange program demonstrates how cross-country learning can accelerate transformation in agriculture and rural development education.

Part A

AGRI-MOCKS Comparative Country Report

Career guidance in agriculture and rural development education and training

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1. Introduction

Career guidance plays a pivotal role in addressing youth unemployment, skills mismatches, and enhancing employability in agriculture and rural development. Across diverse contexts—ranging from the highly structured systems of Germany to the emergent guidance ecosystems in Ethiopia and Ghana—the AGRI-MOCKS project provides an opportunity to support and scale career development through virtual exchange, digital platforms, and institutional collaboration.

This report synthesizes insights from five country-specific studies (South Africa, Ethiopia, Senegal, Germany, and Ghana), identifying common challenges, country-specific innovations, and strategic opportunities to institutionalize career guidance in agricultural education and training.

2. Methodology

Each country report utilized a combination of literature review, stakeholder interviews, policy analysis, and institutional case studies:

- **South Africa** and **Germany** relied heavily on national policies, academic resources, and internet-based institutional reviews.
- **Ethiopia** and **Ghana** applied mixed-methods, including key informant interviews, student surveys, and case studies.
- **Senegal** drew on descriptive analysis and national institutional overviews.
- **Finland**: literature and institutional analysis

3. Country Snapshots

South Africa

Career guidance remains unevenly accessible, particularly in rural areas. The integration of virtual tools (e.g., AGRI-MOCKS) and mobile platforms can expand exposure to green and digital agriculture careers.

Key Opportunities:

- Embed digital career exploration tools into TVET and HE curricula.
- Use radio and mobile platforms for rural outreach.
- Enhance educator training for career coaching.

Challenges:

- Infrastructure disparities.
- Underrepresentation of rural youth in career services.

Ethiopia

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Career guidance in agriculture is underdeveloped. Only 23% of institutions offer formal services. Fragmented systems, limited funding, and poor industry alignment hinder effectiveness.

Key Opportunities:

- Leverage youth demographics and the Digital Ethiopia 2025 strategy.
- Use mobile apps and online labor market info systems.
- Foster university-industry linkages and mentorships.

Strategic Priorities:

- Develop a national guidance framework.
- Train 200 agricultural career counselors by 2026.
- Launch a national agricultural career portal.

Senegal

With 60% of the workforce in agriculture, the sector suffers from a negative image among youth. However, the technical education network is extensive, and programs in agroecology and ICT are growing.

Innovations:

- Field schools and practical internships.
- ICT tools like “SénéSol” for agro-advisory services.
- Programs like “Agro-Entrepreneuriat des Jeunes” and PRACAS promoting rural entrepreneurship.

Barriers:

- Disconnect between training and job market.
- Limited access to finance.
- Persistent perception of farming as a last-resort career.

Recommendations:

- Strengthening agroecology and climate adaptation modules.
- Promote high-potential sectors like aquaculture and bioenergy.
- Advance gender-sensitive training initiatives.

Germany

Germany has one of the most mature career guidance ecosystems, supported by strong legal frameworks, multi-level governance, and innovative digital tools. However, access disparities remain, especially for marginalized groups.

Best Practices:

- Career Information Centres (BIZ) and the Federal Employment Agency (BA).
- Digital platforms like Planet-Beruf.de and initiatives like DAAD's Campus International.
- AI tools (e.g., ResumAI) and game-based platforms (e.g., Future Time Traveller).

Recommendations:

- Expand digital and mobile access in rural areas.
- Establish agriculture-specific mentoring and excursion programs.
- Integrate entrepreneurial and soft skill modules into HE.

Ghana

Career guidance in agriculture is nascent but promising. Youth remain largely uninterested in agriculture due to outdated perceptions. Institutions like KNUST and KITA are piloting guidance-integrated curricula.

Key Initiatives:

- E-HAPPY project promoting digital farming and mentorship.
- Youth Entrepreneurship Trust Fund (AfDB) and YALI mentorship programs.
- Competency-Based Trainings in value chains (oil palm, cashew, citrus).

Recommendations:

- Establish funded career guidance units in agricultural institutions.
- Organize agricultural career fairs and speaker events.
- Create funding hubs and enterprise competitions.
- Partner with financial institutions for youth agri-entrepreneur support.

Serbia

Although on the right track, with some great initiatives, career guidance in Serbia faces several challenges. Almost all stakeholders are primarily focused on the population within formal education, but they are aware of the need to further expand their reach to include participants from non-formal education, as well as individuals from vulnerable groups. In addition, it is necessary to establish a sustainable system of financial support for service providers and to work on the development of digital tools.

Key Initiatives:

- „Obrazovanje po meri poljoprivrede“ - is a dual program through which the national chamber of commerce connects students of various academic profiles with companies where they perform paid internships
- Teaching Fair, Agricultural Fair and workshops organized by NGOs, donors, youth organizations and offices

- Career Guidance and Counselling Teams from primary to higher education

Recommendations:

- Development of a national digital platform that will encompass all opportunities, activities, workshops, programs, and training offered by government and state bodies, as well as by domestic and international donors, NGOs, and associations.
 - Deepening cooperation with companies, businesses, as well as small shops, agricultural households, and local cooperatives.
 - Connecting all stakeholders and promoting the KViS standards and opportunities, as well as all training seminars and professional development programs.
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Finland

A lifelong guidance model ensures universal entitlement, supported by education providers, municipalities, and employment services.

Strengths:

- Multi-actor system (education institutions, One-Stop Guidance Centres, employment services).
- Professionalized counselor training (60 ECTS postgraduate, master's options).
- Strong networks (SOPO, Euroguidance, Cedefop, International career guidance organizations).
- Integration with lifelong learning strategy (2020–2028), coordinated by the National Lifelong Guidance Forum.
- Evidence-based, customer-oriented, equal, digital, high-quality, and cross-sectoral guidance.

Operational Details Relevant to Agriculture:

- One-Stop Guidance Centres and universities can embed sector-specific counselling for agriculture and rural development.
- HAMK and other universities provide holistic student support: personal study plans, thesis guidance, career planning, and well-being.
- Guidance counsellors' education and continuous professional development are well-structured, allowing adaptation of Finnish models in other countries.
- Ethical guidelines and international collaboration ensure quality and relevance of services.
- Research-driven approach addresses digitalization, green transition, and sustainable career pathways.

Relevance to agriculture: Finland's holistic and research-driven system offers models for digital, cross-sectoral, and sustainable guidance that can be adapted in other contexts.

4. Cross-Cutting Insights

Common Challenges

- **Limited and unequal rural access** to structured career services.
- **Disconnect** between training content and labor market demands.
- **Insufficient counselor training** and fragmented institutional support leading to shortage of trained counselors..
- **Negative youth perceptions** of agriculture as unattractive, low-status or unprofitable.

Common Opportunities

- **Digital platforms** and mobile technologies offer scalable solutions.
- **Public-private partnerships** can enhance practical exposure.
- **Mentorship and internships** bridge the education-employment gap.
- **Virtual tools** like AGRI-MOCKS expand access to green/digital career pathways.

5. Key Recommendations

1. **Develop National and Institutional Frameworks**
 - Countries like Ethiopia and Ghana need formalized national career guidance policies in agriculture.
 - South Africa and Senegal should expand virtual and radio-based outreach to rural youth.
2. **Scale Up Digital and Remote Guidance Tools**
 - All countries can benefit from mobile counseling apps, AI-powered guidance, and career portals.
 - Leverage AGRI-MOCKS to support experiential and virtual exchanges.
3. **Build Capacity through Counselor Training**
 - Establish certification programs for career counselors (especially in Ethiopia and Ghana).
 - Embed career guidance modules into educator training in TVETs and HEIs.
4. **Strengthen Employer and Industry Linkages**
 - Promote internships, on-farm apprenticeships, and speaker series in collaboration with agribusinesses.
 - Germany and Senegal exemplify successful integration of practical learning into training.
5. **Promote Agriculture as a Viable Career**
 - Use fairs, success stories, competitions, and influencer-led campaigns to reshape perceptions.
 - Encourage entrepreneurship and highlight non-farming roles (e.g., agri-tech, policy, sustainability).
 - Showcase successful entrepreneurs, sustainability and non traditional agri-careers

6. Conclusion

The AGRI-MOCKS project can catalyze transformation of career guidance across six diverse contexts. Despite varying institutional readiness, a unified push toward digital, inclusive, and industry-linked guidance systems can reposition agriculture as a future-oriented and rewarding career for youth.

Finland and Germany offer mature models of integration and coordination, while Ethiopia, Ghana, and Senegal present high-impact opportunities for systemic innovation. South Africa illustrates the urgency of bridging rural gaps through mobile and digital tools. Finland's holistic, research-driven, and multi-actor lifelong guidance system provides lessons for digitalization, cross-sectoral integration, and sustainable career development in agriculture.

References and literature

National Skills Development Plan 2030 – DHET

National Development Plan 2030 – South African Government

DHET Career Development Services – www.careerhelp.org.za

JET Education Services (2022) – Mapping Career Guidance in South Africa

Pathways from School to Work in South Africa – Van Broekhuizen & Spaul

Harambee Youth Employment Accelerator – www.harambee.co.za

African Union (AU). (2023). *Agenda 2063: The Africa We Want*. Retrieved from <https://au.int/en/agenda2063>

Agricultural Transformation Institute (ATI). (2023). *Ethiopia's Agricultural Transformation Agenda*. Retrieved from <https://www.ata.gov.et>

Central Statistical Agency (CSA). (2024). *Ethiopia Demographic and Health Survey*. Addis Ababa: CSA.

Ethio Telecom. (2024). *Annual Report on Telecommunications Access and Usage*. Retrieved from <https://www.ethiotelecom.et>

Ethiopian Development Institute (EDI). (2024). *Survey on Career Guidance in Ethiopian Agricultural Education*. Addis Ababa: EDI Publications.

European Commission. (2024). *Erasmus+ Programme Guide*. Retrieved from <https://erasmus-plus.ec.europa.eu>

Food and Agriculture Organization (FAO). (2022). *Youth in Agriculture: Empowering the Next Generation*. Retrieved from <https://www.fao.org>

Food and Agriculture Organization (FAO). (2023). *Strengthening Agricultural Education for Youth Employment*. Retrieved from <https://www.fao.org>

International Labour Organization (ILO). (2023). *Youth Employment in Agriculture*. Retrieved from <https://www.ilo.org>

International Labour Organization (ILO). (2024). *Youth Employment and Skills Development in Agriculture*. Retrieved from <https://www.ilo.org>

Ministry of Education (MoE). (2024). *Annual Report on Agricultural Education and Training in Ethiopia*. Addis Ababa: MoE.

Ministry of Science and Higher Education (MoSHE). (2023). *Digital Ethiopia 2025 Strategy*. Retrieved from <https://www.moshe.gov.et>

World Bank. (2023). *Education and Skills Development in Ethiopia: Challenges and Opportunities*. Retrieved from <https://www.worldbank.org>

Career guidance in the digital context: trends in Germany Susanne Kraatz, CareersNet, Germany; Matthias Rübner, and Peter Weber, Research Gate, February 2001

Berufs-, Studien- und Laufbahnberatung (BSLB), Prof. Dr. A. Hirschi, April 2018

Vocational Counsellor in the German School System: Historical and Institutional Context of the Profession, Magdalena Zapotoczna, University of Zielona Góra. Faculty of Education, Psychology and Sociology, Annales Universitatis Mariae Curie-Skłodowska Lublin – Polonia Vol. XXXIV, 4 SECTIO J, 10.17951/j.2021.34.4.205-215, 2021

E-Happy Project (2024) in Ghana's Agric Sector

YALI Ghana (2024). Empowering Future Agribusiness Leaders

E-HAPPY

Kwame Nkrumah University of Science and Technology (KNUST). (2024). Career Services Overview.

MoFA

MoFA (2024) Career Guidance initiatives in Agriculture Education

AfDB (2024) Youth Entrepreneurship and Innovation Multi-Donor Trust Fund

Mastercard Bridge in Agriculture Program

Part B

AGRI-MOCKS Comparative Country Report

Entrepreneurial mindset in agriculture and rural development education and training

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1. Introduction

The AGRI-MOCKS project, in its commitment to fostering innovation and sustainable development, recognizes the critical importance of an entrepreneurial mindset in agriculture and rural development. This mindset is crucial for empowering young people and adults to navigate the challenges of climate change and digital transformation. This report synthesizes findings from a series of individual country reports focused on Senegal, Ghana, Ethiopia, South Africa, Serbia, and Germany. The aim is to provide a comprehensive overview of the current landscape of entrepreneurial education in these regions, identify common challenges and opportunities, and offer key conclusions and recommendations to guide future project activities and policy initiatives. The integration of entrepreneurial thinking into education and training is essential for creating a more cohesive and inclusive society, promoting mutual understanding and cooperation, and equipping young people with the practical skills necessary for social and professional integration in a rapidly changing world.

2. Methodology

The compilation of this report relies on a diverse range of data collection methodologies employed by the individual task forces. These methods included:

- **Document Analysis:** A significant portion of the data was gathered through the review of national and European policy documents, government strategies (e.g., Ethiopia's National Entrepreneurship Strategy, Serbia's Agriculture and Rural Development Strategy), academic publications, and entrepreneurship ecosystem reports. **Senegal** drew on descriptive analysis and national institutional overviews.
 - **Qualitative Research:** In countries like Ghana, a qualitative cross-sectional design was used. This involved conducting individual and group interviews with key stakeholders, including women, youth, and students from farmer cooperatives and Agricultural Training Centers.
 - **Literature Review:** All reports incorporated extensive literature reviews, drawing on research on available programs, initiatives, and theoretical frameworks related to entrepreneurial competencies and education.
 - **Online Research:** Web-based browsing was utilized to gather up-to-date information on programs and initiatives aimed at supporting young entrepreneurs in different countries.
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3. Country Snapshots: State of the Art in Entrepreneurial Education

South Africa

In South Africa, fostering an entrepreneurial mindset is a strategic imperative to address persistent youth unemployment, drive rural development, and achieve economic transformation. The agricultural and rural sectors are identified as key areas where entrepreneurship can act as a catalyst for job creation and innovation. Although the country has

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strong policy frameworks in place, practical exposure to entrepreneurial thinking is often limited, especially for youth in under-resourced settings. The AGRI-MOCKS project is designed to help bridge this gap by offering virtual engagement and experiential learning opportunities. There is a significant opportunity to embed entrepreneurial mindset training through simulation-based experiential learning platforms, business incubators within agricultural higher education institutions, and the integration of entrepreneurial modules into existing courses. Collaborations with youth-focused programs like the National Youth Development Agency (NYDA) and others can further scale these efforts.

Ethiopia

Ethiopia's economy is at a critical juncture, having been formally declared an "entrepreneurial state" in 2024. This declaration signals a nationwide commitment to fostering innovation and private sector development. The agricultural sector, which employs over 70% of the population, is central to this transformation. Despite this, the sector remains under-leveraged in terms of technology adoption, value addition, and youth participation. The country's education system has traditionally focused on subsistence farming, but the National Entrepreneurship Strategy (NES) and related policy reforms are creating a fertile ground for integrating entrepreneurial thinking into Technical and Vocational Education and Training (TVET) and higher education. A key challenge is the concentration of entrepreneurial support in urban areas, leaving rural youth with limited access to resources, incubation hubs, and mentorship. Opportunities are emerging in high-growth sectors like agro-processing, organic farming, and agricultural technology, which can be leveraged to create new generations of agri-business owners.

Senegal

Agriculture is a cornerstone of the Senegalese economy, employing 60% of the working population. Despite its importance, the sector faces significant hurdles. These include the profound effects of climate change on food security, a low level of attractiveness for young people, entrenched gender inequalities, and limited access to financing. Women, who are often excluded from leadership and decision-making roles, are particularly affected. However, agricultural entrepreneurship presents a significant opportunity for their empowerment. By developing skills in management, marketing, and fundraising, women can boost their economic power and employability. The project in Senegal is specifically focused on the inclusion of vulnerable groups, such as young people in precarious situations, rural women, and people with reduced mobility, aiming to reduce structural inequalities. Digital literacy is a key component, with activities designed to encourage civic engagement on topics like climate change and the digital transformation of the agricultural sector. The country has several institutions and programs (LTA, CNFTEIA, CNFTAGR, ENSA, ENCR) that promote practical learning and rural entrepreneurship, but challenges such as mismatches between training and the job market persist.

Germany

Germany's education system actively promotes entrepreneurial skills from an early age, supported by a variety of programs and initiatives from both the public and private sectors. The

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country's approach is in line with the European Commission's Entrepreneurship 2020 Action Plan. Entrepreneurship and business education are integrated into formal school subjects like economics and social studies, although the specific implementation can vary between federal states. Practical, hands-on learning is a key feature of the German system. Programs such as Deutscher Gründerpreis für Schüler:innen (German Entrepreneurship Award for Students) allow students to turn their ideas into fictional business concepts, including business plans and marketing strategies. The JUNIOR program, run by the Institute for the German Economy, allows students to create and manage real companies. For higher education, the EXIST program provides funding and support for university graduates and researchers to launch technology- and knowledge-based businesses. Furthermore, networks like STARTUP FUTURE provide support for pupil-run companies and connect them with experts.

Ghana

In Ghana, the agricultural value chain is critical for socio-economic development, employing 38.3% of the workforce and accounting for 22.2% of the National Gross Domestic Product (GDP). However, the sector is constrained by low productivity, high post-production losses, inadequate infrastructure, limited access to credit, and weak value chain links. The government and various institutions are attempting to infuse an entrepreneurial mindset into agricultural education and training to spur innovation and resilience. The National Entrepreneurship & Innovation Programme (NEIP) is a prominent example of a government initiative aimed at supporting startups. Training is provided by institutions at the pre-tertiary and tertiary levels, but there is a recognized need to tailor these programs to be more gender responsive. Specific recommendations for Ghana include the development of curricula that incorporate tailored business development and incubation services and the establishment of a revolving fund to provide financial support for entrepreneurs who complete the training

Serbia

Serbia has a foundation for developing entrepreneurial thinking in agriculture, but implementation is still in its early stages. The country's Agriculture and Rural Development Strategy (2014–2024) includes measures to support small farms and promote innovations, but a coordinated national strategy for entrepreneurial education in agriculture is lacking. The Strategy on Development of Education until 2030 formally recognizes entrepreneurship training as a key competence, but the practical application within the agricultural sector is partial and often project oriented. Young farmers have access to European funds (IPARD II and III), which necessitates training in business planning and farm management. Research has shown that early exposure to entrepreneurial skills in agricultural high schools can significantly influence students' career aspirations. The key challenge is creating a coordinated strategy that links ministries, universities, secondary schools, and the private sector to ensure a consistent and integrated approach.

Finland

According to the new global report of the Global Entrepreneurship Monitor (GEM) Finland is the number one country in entrepreneurship education among 50 countries that were compared in the report. Finnish universities are actively integrating entrepreneurship into their curricula, aiming to cultivate an entrepreneurial mindset and equip students with the skills needed for both starting their businesses and thriving in innovative environments. This integration is part of a broader national effort to foster innovation and economic growth, with higher education institutions playing a key role in the National Innovation system.

4. Opportunities for Integration of Entrepreneurial Mindset

Based on the country reports, several key opportunities for integrating an entrepreneurial mindset into agricultural and rural development education emerge. These opportunities can be categorized into four main areas:

Curriculum Modernization and Tailoring

- **Hands-on, Market-Driven Content:** Modernize curricula to move away from theoretical knowledge and towards practical, market-driven content. This includes integrating modules on financial literacy, business plan development, marketing, and value chain analysis directly into agricultural science and farm management courses.
- **Gender-Responsive Curricula:** Develop and implement gender-responsive curricula that specifically address the challenges and opportunities for women and other vulnerable groups in agriculture. This includes providing tailored business development and incubation services.
- **Digital and Green Skills:** Integrate training on digital technologies and agro-ecology into all levels of education. This is crucial for strengthening resilience to climate change and aligning with emerging green and digital job profiles in agriculture.
- **Experiential Learning Platforms:** Utilize simulation-based experiential learning platforms, such as AGRI-MOCKS, to provide a safe and effective environment for students to practice entrepreneurial skills without real-world financial risk.

Strengthening Mentorship and Access to Resources

- **Incubation Hubs:** Establish and strengthen business development centers and incubators within agricultural institutions, especially in rural areas. These hubs can provide a supportive ecosystem for aspiring agripreneurs.
- **Mentorship Networks:** Create and expand networks of experienced entrepreneurs and mentors to guide young people in developing their business ideas and navigating the challenges of starting a business.
- **Public-Private Partnerships:** Foster public-private partnerships to ensure sustained entrepreneurial development. This can involve collaboration between educational institutions, government agencies, and private companies to provide funding, mentorship, and real-world learning opportunities.

Promoting Accessible Finance and Support

- **Revolving Funds:** Establish a revolving fund that provides seed capital or micro-loans to entrepreneurs who have completed training programs, helping them to implement their business ideas.

- **Financial Literacy Training:** Integrate financial literacy and fundraising skills into training programs to help young entrepreneurs overcome the significant barrier of access to financing.
- **Accessible Technological Solutions:** Develop and promote the use of accessible technological solutions that are affordable and easy to use, especially for farmers in rural areas.

Fostering a Positive Image of Agriculture

- **Career Promotion:** Actively promote agripreneurship as a viable and attractive career path for youth. This involves changing the often-negative image of agriculture as a low-skill, low-return profession.
- **Civic Engagement:** Integrate digital activities and intercultural dialogue to encourage young people's civic engagement around themes such as climate change and the digital transformation of the agricultural sector, inspiring them to see the potential for positive impact.

5. Key conclusions and recommendations

The collective findings from the reports on Ghana, Ethiopia, South Africa, Senegal, Serbia, and Germany underscore a global consensus on the importance of fostering an entrepreneurial mindset in agriculture. While the specific challenges and policy landscapes vary by country, several key themes and recommendations emerge that can inform a unified strategy.

Key Conclusions:

- **Policy-to-Practice Gap:** There is a consistent gap between high-level policy recognition of entrepreneurship's importance and its systematic, practical implementation in education and training, particularly in the agricultural sector.
- **Youth and Rural Focus:** A strong emphasis is placed on addressing youth unemployment and rural development through agripreneurship. However, support structures and resources are often concentrated in urban centers, creating a disparity that needs to be addressed.
- **Digital and Gender Imperatives:** The integration of digital technologies and the promotion of gender equality are crucial for revitalizing the agricultural sector and ensuring its resilience and inclusivity.
- **Need for Integrated Approaches:** Standalone programs are less effective than integrated approaches that combine theoretical education with practical, experiential learning, mentorship, and access to finance and markets.

Recommendations:

1. **Develop a Unified Curriculum Framework:** Create a flexible curriculum framework that can be adapted to local contexts while ensuring the core principles of entrepreneurial thinking are consistently taught. This framework should include modules on business planning, financial management, marketing, and the use of digital tools in agriculture.
2. **Establish a Multi-Country Mentorship Program:** Launch a cross-country mentorship program that connects aspiring agripreneurs with successful entrepreneurs and experts. This can be facilitated virtually through platforms like AGRI-MOCKS to overcome geographical barriers.
3. **Advocate for Policy Coherence:** Encourage ministries of agriculture, education, and

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innovation to work together to create a cohesive national strategy for agricultural entrepreneurship. This will ensure that efforts are not siloed and that resources are allocated effectively.

4. **Promote Experiential and Simulation-Based Learning:** Expand the use of simulation-based learning platforms and practical competitions across all partner countries. This hands-on approach is vital for developing the skills and confidence needed to start a business.
5. **Secure and Streamline Funding:** Work with public and private partners to establish accessible funding mechanisms, such as a revolving fund, and provide training on how to access existing national and international funding opportunities for young agripreneurs.

By implementing these recommendations, the AGRI-MOCKS project can play a pivotal role in creating a new generation of innovative, resilient, and inclusive agricultural entrepreneurs across Europe and Africa

References and literature

Vlada Republike Srbije (2014). Strategija poljoprivrede i ruralnog razvoja Republike Srbije (2014–2024).

Vlada Republike Srbije (2021). Strategija obrazovanja i vaspitanja do 2030.

Otovic S, Demirovic D, Kasic K, Vujko A (2017). FOSTERING ENTREPRENEURSHIP AT HIGH SCHOOLS: A CASE OF RURAL AREAS IN VOJVODINA (SERBIA). *Economics of Agriculture* (4).

Global Entrepreneurship Monitor (GEM) – South Africa Report (2022).

DHET Entrepreneurship Development in Higher Education (EDHE) Programme www.edhe.co.za

National Development Plan 2030 – South African Government.

The Missing Entrepreneurs – OECD Development Centre Report.

FAO & CTA (2019). Youth in Agriculture: Unlocking the Potential of Young Agripreneurs.

Lackéus, M. (2015). *Entrepreneurship in Education: What, Why, When, How*. Working paper prepared for the OECD. https://vcplis.com/wp-content/uploads/2014/10/Lackeus-2014_WP_Entrepreneurship-in-Education-FINAL-for-OECD-141023.pdf

OECD. (2018). *Future of Education and Skills 2030*.

OECD. <https://www.oecd.org/en/about/projects/future-of-education-and-skills-2030.html>

Ampuja, M & Horowitz, M 2024, 'Doing "more with less": the entrepreneurialization of Finnish higher education and innovation policy discourses in 2015-2019', *Scandinavian Journal of Educational Research*. <https://doi.org/10.1080/00313831.2023.2299988>

Crosswell, L. & Beutel, D. (2012). Investigating pre-service teacher's perception of their preparedness to teach. *International Journal of Learning*, 18(4), 203-211.

<https://gender.cgiar.org/gender-transformative-approaches-in-agriculture/>.

Implementing Gender Transformative Approaches in Agriculture: A Discussion Paper for the European Commission.

Ministry of Food and Agriculture (MoFA). (2025). Feed Ghana Programme. Accra: Government of Ghana.

National Entrepreneurship & Innovation Programme (NEIP). (2025, MAY 15). Retrieved from <http://www.neip.gov.gh>.

S African Union Strategy for Gender Equality & Women's Empowerment 2018-2028.

Youth Employment Agency (YEA). (2025, May 16). Retrieved from <http://www.yea.gov.gh>.

Federal Democratic Republic of Ethiopia. (2020). National Entrepreneurship Strategy of Ethiopia (2020–2025). Ministry of Innovation and Technology.

Aspen Network of Development Entrepreneurs (ANDE) & CATALYZE MS4G. (2024). Entrepreneurial Ecosystem Mapping Report: Ethiopia 2024 Insights. ANDE & USAID.

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World Bank Group. (2024). World Bank in Ethiopia – Country Overview.

German Federal Ministry for Economic Affairs and Energy (2020). Entrepreneurship education in Germany.

Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (2015/2021). Framework agreement on vocational schools (Rahmenmvereinbarung über die Berufsschule).

Part C

AGRI-MOCKS Comparative Country Report

Twin transition in agriculture and rural development education and training

May 2025

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1. Introduction

The twin transition—digitalisation and sustainability—into agricultural and rural development education and training demands a multifaceted approach. This approach must blend technological innovation with environmental responsibility to equip the next generation of farmers, rural leaders, and educators with the skills needed for a sustainable future.

The green transition involves reconfiguring businesses and infrastructure to maximise economic returns while reducing environmental impact. This includes lowering greenhouse gas emissions, conserving natural resources, minimising waste, and addressing social disparities. In 2023, the bioeconomy, particularly focused on renewable biological resources like forests, generated EUR 29.3 billion—12% of Finland's GDP (Natural Research Institute Finland, 2024). The sector employed around 300,000 people, or 11% of the workforce, and Finland aims to double the bioeconomy's contribution to GDP by 2035 (Finnish Government, 2022).

Achieving the green transition's potential requires reshaping the labour market and educational curricula. To support the uptake of greener technologies and sustainable practices, new skills and values must be incorporated into education, particularly in higher education and vocational training. These sectors play a critical role as catalysts for the green transition.

Digitalisation is also essential. Finland, consistently ranked among global leaders in digitalisation and Industry 4.0 maturity (Khan et al., 2022), exemplifies how technological advancement can empower agriculture and rural development.

The integration of digital and green transitions in education can empower both youth and adults, promoting the adoption of digital innovations and sustainable practices in rural areas. This integration is most effective through programmes that link training, education, and knowledge transfer, using digital tools and green technologies to prepare young farmers for the future of agriculture.

In **Ghana**, agriculture remains a cornerstone of the economy but faces challenges such as climate change and low productivity. Addressing these requires incorporating digital innovations (e.g. mobile apps, AI, drones) and sustainable farming practices (e.g. agroecology, organic farming) into educational curricula. This dual focus will help future professionals tackle issues like climate change, food security, and rural poverty.

South Africa is navigating its own twin transition, responding to environmental vulnerabilities and youth unemployment by promoting both green and digital transformation. However, challenges such as uneven digital infrastructure and limited access to education exacerbate urban-rural and income divides.

Senegal's agricultural sector, also grappling with climate change and technological disruption, requires an overhaul of its agricultural education system. The current curriculum often lacks alignment with the ecological and digital demands of modern agriculture. This study aims to assess Senegal's agricultural education, identify opportunities for integrating sustainability and digitalisation, and support youth development in rural areas through the AGRI-MOCKS project, which equips students with the skills to thrive in a digital, sustainable future.

Similarly, in **Ethiopia**, the report explores the integration of environmental and technological transitions into higher education and rural development, with a focus on fostering youth-led entrepreneurship. The goal is to embed green and digital competencies into curricula, aligning with Ethiopia's national development plans (NPC, 2021).

2. Methodology

This report combines policy analysis, interviews, online research, case studies, and academic papers to gather data. Semi-directive interviews were conducted with stakeholders in agricultural education, including teachers, students, and policymakers, as well as through participatory workshops at institutions like ENSA and ISFAR. A literature review focused on key national policies, such as Ethiopia's Education and Training Policy (1994), the Ten-Year Development Plan (2021–2030), and strategies for the digital and green economy. This approach identified barriers and opportunities for the twin transition, providing tailored recommendations for local contexts.

For Senegal, a qualitative, exploratory approach was used. Primary data were collected through semi-directive interviews with agricultural training professionals—teachers, students, and policymakers—along with workshops at institutions (ENSA, ISFAR, rural training centres). A literature review analysed policies and educational programmes on the ecological and digital transition. This triangulation of data helped highlight the challenges and opportunities for integrating the twin transition, with recommendations suited to Senegal's needs.

3. Country Snapshots: State of the Art in Twin Transition

South Africa

South Africa has strong policy frameworks, including the Just Energy Transition Investment Plan (JET-IP) and the National Digital and Future Skills Strategy. However, challenges in digital infrastructure and skill gaps persist, especially in rural areas.

Ethiopia

In Ethiopia, efforts to integrate green and digital transitions are hindered by systemic challenges. While the Digital Ethiopia 2025 Strategy and the National Green Economy Strategy outline clear goals, progress is slow. Only 15% of higher education institutions have integrated green and digital competencies into curricula, and rural communities face connectivity issues. However, universities like Hawassa and Bahir Dar are piloting green campus initiatives and ICT-based learning tools.

Ethiopia's career entrepreneurship programs, such as the Rural Job Creation Strategy and Agricultural Commercialization Clusters (ACC), are slowly incorporating green and digital skills. Initiatives supported by GIZ and FAO demonstrate the potential for youth engagement in agritech and eco-tourism, though coordination and scale remain limited.

Senegal

Senegal's agricultural education system, reliant on public institutions like ENSA and ISFAR, struggles with outdated content and limited access to digital tools. A comprehensive transformation is needed to address challenges in food sovereignty, sustainability, and agricultural modernization.

Germany

Germany's dual education system integrates academic studies with industry-based training, particularly in agricultural management. Partnerships with companies like John Deere and BayWa provide students with practical experience. National efforts, led by the Federal Institute for

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Vocational Education and Training (BIBB), aim to align vocational education with sustainability goals. BIBB hosted a European Peer Learning Activity on green skills and curriculum development in October 2024. Events like Tropentag and IALB workshops support participatory research and digital innovation in agriculture.

Ghana

In Ghana, agricultural education integrates digital tools and green innovations. Institutions like KITA and initiatives like E-HAPPY train youth in digital farming technologies. Tech platforms such as Tech for Farmers Ghana and Farmerline provide essential information on weather, market prices, and farming practices.

Serbia

Serbia's twin transition is still in its early stages, but key institutions, such as the BioSens Institute, are advancing digital agriculture. Serbia's Digital Farm and AgroSens platform, which uses satellite imagery and drones, provide valuable tools for farmers, with over 15,000 registered users.

Finland

In Finland, twin transition efforts align with EU strategies like the European Skills Agenda and the Green Deal. Educational institutions, such as Häme University of Applied Sciences (HAMK), focus on sustainability and climate-smart agriculture (CSA), and are committed to becoming carbon-neutral by 2030. HAMK's collaboration with businesses in bioeconomy sectors exemplifies the successful integration of green and digital transitions.

Finnish initiatives like the Bioeconomy Campus at Jyväskylä University and the TWINWIN project at Helsinki University further explore green technologies, including biodiversity and soil carbon sequestration. HAMK also leads international projects, such as GreenEdAsia, to support higher education transitions in Southern Asia.

4. Opportunities for integration of Twin Transition in HE and youth trainings in country

There is significant potential to integrate the twin transition in higher education (HE) and youth training, particularly through mobile-based learning platforms in rural areas. Introducing "green" curricula that incorporate climate-smart agriculture, sustainable land use, and agroecological practices alongside digital tools can increase relevance and impact. Strengthening public-private partnerships in Ghana, particularly through institutions like KITA, KNUST, and AAMUSTED, will be crucial to providing hands-on training and improving digital infrastructure access.

South Africa

In South Africa, integrating climate-smart agriculture, renewable energy systems, and agri-tech tools into curricula at TVETs and HEIs will prepare students for emerging sectors. Initiatives like the YES Programme, NYDA, and AgriSETA can support practical learning, while scaling up Training of Trainers (ToT) programs will equip educators with digital teaching skills.

Ethiopia

Ethiopia has a potential opportunity to integrate the Twin Transition encompassing both digital and green aspects into higher education and youth training. Recent initiatives, such as the establishment of Science Museums and digital learning initiatives through the Ethiopian Science for Higher Education (ESHE) program by the Ministry of Education in partnership with Arizona State University, provide platforms for advancing innovation, research, and public engagement. At the same time, the government's move to digitalize exit exams, national university entrance exams, and competency (CoC) assessments in polytechnic colleges demonstrates a commitment to building digital capacity across the education system. By coupling these digital advancements with green skills training in areas like climate-smart agriculture, renewable energy, and sustainable resource management, Ethiopia can equip its youth with the competencies needed for employability, entrepreneurship, and leadership in the twin transition.

Senegal

In Senegal, updating curricula to include agroecology, sustainable resource management, and digital tools (e.g., drones, climate warning systems) is key. Capacity-building for teachers, partnerships with research organizations, and supporting agricultural incubators will strengthen the integration of these concepts. A national framework involving the Ministries of Agriculture and Higher Education could harmonize efforts and enhance rural youth involvement.

Opportunities for integrating the twin transition into curricula include creating interdisciplinary study programs, involving students in pilot projects, hackathons, and start-up competitions, and promoting micro-credentials in sustainability and digital skills. Universities can partner with rural schools, cooperatives, and tech firms to foster green entrepreneurship, while mobile-based platforms can increase accessibility, particularly for women and marginalized youth.

Germany

Germany's twin transition efforts are embedded in EU strategies like the European Skills Agenda, Farm to Fork, and the Green Deal, which focus on adapting vocational education to meet green and digital challenges. Erasmus+ projects like FIELDS promote innovation in agriculture and forestry, emphasizing sustainability and digitalization while fostering collaborations between VET institutions, rural businesses, and higher education.

Ghana

There is significant potential to integrate the twin transition in higher education (HE) and youth training, particularly through mobile-based learning platforms in rural areas. Introducing "green" curricula that incorporate climate-smart agriculture, sustainable land use, and agroecological practices alongside digital tools can increase relevance and impact. Strengthening public-private partnerships in Ghana, particularly through institutions like KITA, KNUST, and AAMUSTED, will be crucial to providing hands-on training and improving digital infrastructure access.

Serbia

In Serbia, resources and initiatives exist for twin transition, but more work is needed to integrate existing programs into cohesive educational models and to build local capacities. Leveraging

virtual exchanges and e-internship models, like those from AGRI-MOCKS, will expose students to green and digital job opportunities.

Finland

Finland's approach to the twin transition is exemplary, integrating green transition principles across curricula, research, and industry collaboration. The competence-based qualification system allows for personalized learning, and strong industry partnerships ensure that training is aligned with real-world needs. Finland's focus on international collaboration and research investment in green technologies positions it as a leader in preparing individuals for sustainable agriculture.

5. Key conclusions and recommendations

Across Germany, Ghana, South Africa, Serbia, and Finland, advancing the twin transition in agriculture requires a comprehensive, multi-pronged approach. Key areas for focus include infrastructure development, curriculum reform, inclusive access, and strong collaboration between education, industry, and government.

- **Invest in Digital and Green Infrastructure**

Reliable digital infrastructure is essential for embedding the twin transition in education. While Ghana and South Africa face challenges in rural areas, with limited internet access and digital devices, projects like E-HAPPY and remote learning initiatives at KITA are paving the way for improvement. Germany, benefiting from established infrastructure, continues refining its dual education system by integrating industry partnerships, while Serbia has research capacity but needs to scale digital applications in rural areas. Finland leads with advanced digital tools in education, which complement its green transition efforts.

- **Reform Curricula to Integrate Green and Digital Competencies**

Updating curricula to reflect climate-smart agriculture, digital agri-tech, and sustainable land use is crucial for aligning education with the evolving agricultural landscape. Ghana has implemented practical agroecology projects, while South Africa advocates for collaboration between education institutions and industry to foster green innovation and digital agri-business. Germany is already ahead, embedding sustainability and digital tools in curricula, which helps keep its programs relevant. Senegal is also pushing for curricula reform to integrate sustainable approaches and technological tools in agricultural training.

- **Strengthen Collaboration Between Stakeholders**

Collaboration between educational institutions, industry, and government is a cornerstone for effective twin transition. Ghana can improve by linking educational institutions like KITA with initiatives such as Tech for Farmers Ghana to provide hands-on experiences. South Africa emphasizes pilot initiatives like AGRI-MOCKS to create scalable, digitally enhanced learning models. Germany's model already demonstrates effective partnerships with global companies and research centres, ensuring practical learning outcomes. Serbia is encouraged to integrate its existing programs and strengthen collaboration to transition toward more comprehensive educational models.

- **Promote Inclusive Access to Twin Transition Skills**

Inclusive access to education and skills training is vital to ensure that the twin transition benefits everyone. Ghana highlights the importance of including more women and people with disabilities in green and digital training. South Africa calls for equitable access to training for youth in rural and marginalized areas to prevent further widening of inequalities. Senegal similarly needs to prioritize inclusive education and ensure rural youth are equipped with the skills necessary for the transition to a sustainable and digital agriculture sector.

Country -specific Insights:

Ethiopia

From the perspective of higher education, integrating extracurricular activities to better integrate digital and green competencies, investing in teacher training and digital infrastructure, and promoting synergies between youth innovation hubs, higher education, polytechnic colleges, and agricultural innovation systems. Strengthening governance, industry linkages through research and internships, and intersectoral coordination will be critical to ensuring that Ethiopia's large youth population benefits from these transitions and contributes to sustainable economic development.

Senegal

Agricultural training systems need an overhaul to integrate ecological and digital transition needs. Key recommendations include updating curricula, investing in teacher training, and promoting synergies between training and agricultural innovation. Strengthening governance and intersectoral coordination will be critical to ensuring the inclusion of rural youth in this process.

Serbia

Serbia has research infrastructure in digital agriculture and green initiatives but lacks widespread rural applications. More integrated programs are needed that connect training, education, and knowledge transfer through digital tools and green technologies.

Finland

Finland's approach to the twin transition is exemplary, integrating green transition principles across curricula, research, and industry collaboration. The competence-based qualification system allows for personalized learning, and strong industry partnerships ensure that training is aligned with real-world needs. Finland's focus on international collaboration and research investment in green technologies positions it as a leader in preparing individuals for sustainable agriculture.

References and literature

- AgriConnect Ghana. (2025). *About AgriConnect*.
- Daffé, G., & Ndione, E. (2018). *Agroécologie et développement durable au Sénégal : enjeux et perspectives*.
- Dual Studies Agricultural Management in Germany - Life-in-Germany.de: Online Journal on Apprenticeships, Studies, Career, and Jobs in Germany for Internationals.
- E-HAPPY Project. (2024). *Empowering Youth for Digital Farming Solutions in Ghana*.
- European Centre for the Development of Vocational Training (Cedefop). (2022). *European Inventory of National Qualifications Frameworks 2022 – Germany*.
<https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices-germany>
- FAO & CTA. (2019). *Youth in Agriculture: Unlocking the Potential of Young Agripreneurs*.
- FAO. (2022). *The future of food and agriculture: Drivers and triggers for transformation*.
- FAO. (2023). *Sustainable Agribusiness in East Africa: Lessons from Ethiopia*.
- Finnish Government. (2022). *Bioeconomy Strategy 2022–2035 – Sustainably Towards Higher Value Added*. https://valtioneuvosto.fi/en/-/1410877/bioeconomy-strategy-2022-2035-sustainably-towards-higher-value-added?utm_source=chatgpt.com
- FDRE. (2011). *Climate Resilient Green Economy (CRGE) Strategy*.
- FDRE. (2017). *Rural Job Creation Strategy*.
- FDRE. (2020). *Digital Ethiopia 2025 Strategy*.
- GIZ. (2022). *Youth and Employment in Rural Ethiopia*.
- Green Economy Inventory for South Africa, DEA & UNEP.
- International Telecommunication Union (ITU). (2023). *Digital Connectivity in Africa: 2023 Report*. Geneva: ITU. Available at: <https://www.itu.int/reports>
- IPAR. (2021). *Jeunes, agriculture et emploi au Sénégal : entre potentiel et obstacles structurels*.
- Khan, I., Kauppila, O., Majava, J., Jurmu, M., Blech, J. O., Annanperä, E., Jurvansuu, M., & Pirttikangas, S. (2022). Industry 4.0 in Finland: Towards Twin Transition. In J. M. Müller, & N. Kazantsev (Eds.), *Industry 4.0 in SMEs Across the Globe: Drivers, Barriers, and Opportunities*. CRC Press. <https://doi.org/10.1201/9781003165880>
- Kwame Nkrumah University of Science and Technology (KNUST). (2024). *Institution Overview*.

- Ministry of Communication and Information Technology (MoCIT). (2020). *Digital Ethiopia 2025 Strategy*. Addis Ababa: MoCIT. Available at: <https://www.mocit.gov.et>
- Ministry of Education (MoE). (2021). *Digital Education Strategy*.
- Ministry of Education (MoE). (2024). *Higher Education Sector Review*. Addis Ababa: MoE. Available at: <https://www.moe.gov.et>
- National Digital and Future Skills Strategy, Department of Communications and Digital Technologies, 2020.
- National Planning Commission (NPC). (2021). *Ethiopia's Ten-Year Development Plan (2021–2030)*. Addis Ababa: NPC. Available at: <https://www.npc.gov.et>
- Natural Resources Institute Finland (LUKE). (2024). *Bioeconomy in Numbers*. https://www.luke.fi/en/statistics/indicators/bioeconomy-innumbers?utm_source=chatgpt.com
- Petrovic, D., Stanimirovic, P., & Vratonjic, A. (2022). *Značaj projekata digitalne transformacije u poljoprivredi i izazovi njihove ocene opravdanosti*. Beograd: Fakultet organizacionih nauka. DOI: 10.5937/tehnika2206767P. <https://rfos.fon.bg.ac.rs/bitstream/handle/123456789/2279/2275.pdf?sequence=1&isAllowed=y>
- Planning and Development Commission of the Federal Democratic Republic of Ethiopia. (2020). *The Ten-Year Development Plan (2021–2030)*. Popular version. [ten_year_plan_popular_version.pdf](#)
- Presidential Commission on the 4IR, South Africa.
- République du Sénégal. (2020). *Plan stratégique de développement de l'enseignement agricole (2020-2025)*.
- Salome Topuria & Helena Gräf. (2023). *German Industrial Policy and the Twin Transition: Pre- and post-Covid Trajectories in the Automotive and IT Services Sectors*. Hochschule für Wirtschaft und Recht Berlin, Institute for International Political Economy. Working Paper, No. 213/2023.
- School-education.ec.europa.eu.
- World Bank. (2021). *Transforming Agricultural Education and Training in Africa*.
- World Bank. (2021). *Digital Economy Diagnostic for South Africa*.
- World Bank. (2022). *The future of food and agriculture: Drivers and triggers for transformation*.

Part D

AGRI-MOCKS Comparative Country Report

Intercultural dialogue and civic participation in education and training

September 2025

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1. Introduction

The AGRI MOCKS project brings together Europe and Africa, thus respecting and representing different cultures, approaches and systems. Moreover, that would not be possible without respecting intercultural dialogue and fostering civil participation.

This report compiles knowledge about the current situation in Germany, Senegal, Serbia, Ghana, Ethiopia, South Africa and Finland. The data shows that, although seemingly very different, these countries face similar difficulties in integrating intercultural dialogue and civic participation at all levels of education, their youth need programs and tools, and stable funding must be provided to enable continued implementation.

2. Methodology

This report combines policy analysis (national and international documents such as laws, strategies and plans), interviews, case studies, stakeholders' insights, civil society reports and academic literature - to gather data. In addition, a qualitative, exploratory approach was used, as well as experiential knowledge from civic training and educational activities.

3. Country Snapshots: State of the Art on intercultural dialogue and civic participation in focus countries

South Africa

South Africa's intercultural dialogue is shaped by its apartheid legacy and vibrant multicultural democracy, as explained in the national report. Despite constitutional support for diversity and inclusion, structural inequality, racism, xenophobia, and ethnic tensions remain ongoing issues. At the same time, civic participation in South Africa is evolving, with digital platforms and youth-led movements becoming more prominent.

There is growing opportunity to integrate intercultural dialogue and civic participation in South Africa through: Life Orientation curricula in schools; Student representative councils and community engagement platforms in HEIs; Online VE platforms such as AGRI-MOCKS for cross-cultural learning; Collaboration with NGOs and advocacy groups to deliver civic education; Digital storytelling, hackathons, and youth forums to simulate participation and Training of educators and inclusion of intercultural competencies in teaching practice.

Ethiopia

Civic participation in Ethiopia has grown in recent years, driven by cultural values, government initiatives, and youth activism according to a national report.

In Ethiopia, several initiatives have been implemented that contribute to intercultural dialogue and civic engagement:

- **Peace Youth Movements:** These movements empower young people to advocate for peace and democratic values and are critical platforms for civic engagement in Ethiopia, particularly in conflict-prone regions such as Oromia, Amhara, and Tigray. Youth-led initiatives, including community clubs and civic education programs, promote tolerance, dialogue, and conflict resolution, addressing ethnic tensions and

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fostering social cohesion. As explained in the national report, a prominent example is the youth-led movement, which played a pivotal role in the 2018 political transition by mobilizing protests that led to the resignation of Prime Minister Hailemariam Desalegn and the rise of Abiy Ahmed, advocating for ethnic inclusion and political reforms. Government initiatives, further encourage youth involvement through training and community dialogues, with over 1,000 youth leaders trained in conflict resolution since 2019.

- **Green Legacy Initiative:** Launched in 2019, with over 32 billion trees planted since its inception. The campaign mobilizes millions of Ethiopians, including youth, schools, government offices, and civil society organizations, to combat deforestation and climate change. In 2019 alone, 353.6 million seedlings were planted in a single day, setting a world record. The initiative has created 767,000 jobs.
- **Community Led Initiatives:** Food-sharing programs often organized through local associations or religious institutions, providing meals to low-income families and internally displaced persons. For instance, Ripple Effect Ethiopia supports self-help groups, often led by women that foster community solidarity through shared resources and social enterprises.
- **Community Shelters:** Civic participation in community shelter construction is notable, particularly through volunteer labor and material donations to support vulnerable groups such as the elderly, disabled, and internally displaced persons (IDPs). Local government and community committees identify needs and mobilize resources, fostering collective action. Youth and community groups, often organized through local associations or government campaigns, contribute significantly to these efforts.

Senegal

In Senegal, agriculture remains a pillar of the economy, employing 60% of the working population. Climate change is one of the biggest, but the sector faces many other challenges: low attractiveness for young people, gender inequalities, and difficult access to financing. Young people in precarious situations, rural women, and people with reduced mobility - all of them need support and skills to reduce structural inequalities.

As noted in the national report, to face the challenges, the use of digital technologies risen. In terms of training, Senegal has several institutions (LTA, CNFTEIA, CNFTAGR, ENSA, ENCR) and programs (PRACAS, Agro-Entrepreneuriat des Jeunes) that promote practical learning, rural entrepreneurship and the use of agricultural ICTs.

However, **challenges** remain mismatches between training and the job market, difficulties in accessing financing, and a negative image of agriculture among young people. To meet these challenges, integrated approaches are needed: promoting innovative sectors (horticulture, aquaculture), strengthening agro-ecology, integrating gender into training, and developing accessible technological solutions.

Germany

According to the national report, intercultural dialogue is integrated into Germany's policy-making processes across federal, state, and local levels, ensuring that intercultural dialogue is addressed comprehensively. It is developed through a combination of formal education, non-formal training, civic programs, and occurs informally through everyday lived experiences and peer interaction.

Programs like “**Demokratie leben!**” include mechanisms for monitoring and evaluating the impact of intercultural initiatives, ensuring accountability and continuous improvement. As explained in the national report, **The Federal Agency for Civic Education** is a key institution responsible for promoting civic education in Germany. It offers a variety of resources, including publications, events, and digital platforms, to encourage informed political participation among citizens. Notably, Agency developed the “Wahl-O-Mat,” an online tool that helps voters compare their political preferences with party platforms during elections.

NGOs and youth organizations, like MitOst e.V., Youth for Understanding (YFU) Germany, and AFS Interkulturelle Begegnungen e.V. provide space for workshops, exchange and intercultural dialogue. In other hand, Freudenberg Foundation support service-learning initiatives that integrate community service with educational curricula.

However, as stated in the national report, despite the many positive initiatives, Germany faces **challenges** related to rising right-wing extremism and xenophobia. The Alternative for Germany (AfD) party's increasing popularity has raised concerns among minority communities and Jewish organizations, highlighting the need for continued efforts in promoting intercultural dialogue and combating intolerance.

Therefore, schools and universities should integrate intercultural competence as a key part of civic education and facilitate peer-led dialogue projects that empower young people to shape their own narratives.

Ghana

Ghana is home to over 80 ethnic groups, including the Akan, Ewe, Mole-Dagbani, and Ga-Dangme, each with distinct languages and traditions. The country's rich cultural diversity presents both opportunities and challenges for peaceful coexistence and meaningful civic participation, according to the national report.

Education, both formal and informal, plays an important role in providing individuals with the skills, values and attitudes necessary for engaging constructively with cultural diversity. However, national report highlights that despite this rich cultural tapestry, the national education curriculum still largely emphasizes academic achievement over intercultural or civic competencies

Several **efforts** have been undertaken to promote civic participation and intercultural dialogue:

- The National Commission for Civic Education (NCCE): raises democratic awareness through school programs and community engagement. In 2024, in collaboration with UNESCO, NCCE organised intergenerational dialogues focusing on youth participation in civic engagement.
- STAR Ghana Foundation's Citizenship Dialogue, an initiative engaging youth and civil society actors in democratic participation discussions.
- KITA's Global Citizenship Programme in 2024: facilitates exchange between Ghanaian and Dutch students through virtual discussions on governance, sustainability, and civic responsibility; comparative learning and project-based collaboration

On the other hand, Ghana, while making strides, still faces gaps in policy development around multiculturalism and civic education. Some of the **challenges** that hinder deeper integration of intercultural dialogue are:

- Limited institutional frameworks – Many education and training institutions lack formalised methods for fostering intercultural exchange.

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- Access and Inclusivity Issues – Vulnerable populations, including economically disadvantaged youth, often have limited opportunities for participation.
- Challenges in Multilingual Education – Ghana’s linguistic diversity (over 80 languages) presents both opportunities and challenges for intercultural dialogue.
- Sector-Specific Gaps – Agriculture and climate-related training programs rarely incorporate civic participation strategies, despite their relevance to global sustainability efforts.

Serbia

When it comes to intercultural dialogue and civic participation in Serbia, Strategy for Youth and Strategy on development of education emphasize the active participation of young people in society and the promotion of tolerance, dialogue and intercultural understanding, including inclusive education and emphasizing the importance of nurturing cultural diversity.

Intercultural dialogue and civic participation are also addressed through **projects** that promote inclusion, equality and trust among young people. The **school's cooperation with the non-governmental sector** has contributed to additional teacher training, by organizing training courses for teachers, especially in civic education and sociology.

Good practice is initiative by [National Youth Council of Serbia \(KOMS\)](#), which gathers 108 youth and for youth organizations and plays a major role in promoting the civic engagement of young people and their participation in political and social issues. Through their platform – [Dialogue](#), young people participated in discussions with institutions, and among their interlocutors was [the Prime Minister](#) (of that time) Ana Brnabic.

However, there are several major **challenges** that hinder the more comprehensive incorporation of these principles. Although projects and initiatives exist, they are not always fully integrated into the formal system. Continuous training of teachers is needed to educate them on intercultural topics, non-gender stereotypes, inclusion, and the use of non-formal education methods, but without ongoing support (legal, financial, personnel) it is difficult for this topic to become part of everyday educational practice. Mechanisms that would enable the coverage of rural and less developed municipalities are often lacking.

Finland

According to the national report, In Finland constitutional, legislative and parliamentary affirmation of multiculturalism and central and/or regional level exists. Municipalities play important role in integration policy and are responsible for basic provisions on social assistance for immigrants. The Finnish education curricula on all levels emphasis tolerance of different cultures and dual citizenship is allowed. The Finnish higher education field is rapidly diversifying. This diversification means, among other things, that a growing number of students from different backgrounds and cultures are starting their higher education studies every year.

Finnish higher education institutions have over 20 000 international students studying in several locations around the country. Our 13 universities and 22 universities of applied sciences (UAS) offer almost 600 bachelor's and master's [degree programmes](#) taught in English. Finnish higher education institutions have over 20 000 international students studying in several locations around the country. As noted in the national report, international students have the potential to contribute significantly to host countries through cultural enrichment, economic growth, and human capital development. But they face very **challenging issue** when it comes to their transition to the Finnish job market

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and encouraging their long-term integration into Finnish society. These issues are partly in the hands of the universities, but partly issues such as for examples, residence permits and income requirements etc. issues are subject to political decisions. Currently, Finland has a strong right-wing government, and the Finns Party sits in the government with strong aims of focusing on what they call „*internal solidarity*“.

The challenges multicultural students face are:

- Lack of recruitment information and industry connections and openness of job market
- Lack of communication from recruiting companies
- Sector variations affecting employment opportunities

4. Opportunities for integration of Intercultural dialogue and civic participation in education and training in HE and youth trainings in focus countries

Based on national reports from partner countries, the opportunities for integration of Intercultural dialogue and civic participation in education and training in HE and youth trainings are:

1. **Curriculum Development:** Introducing or expanding interdisciplinary elective courses on intercultural dialogue, democracy, peace studies, communication and civic participation across universities.
2. **Service-Learning Models:** Linking academic credits (ECTS) with student involvement in local communities, minority groups, and civic initiatives. In addition, student clubs and community-based learning provide hands-on opportunities for young people to take part in service-learning, cultural exchange, and discussions on national matters, fostering their sense of civic duty and strengthening social ties.
3. **University–NGO Partnerships:** Building structured collaborations where universities provide expertise and space, while NGOs contribute participatory methods and youth outreach.
4. **Strengthening Local and Global Partnerships:** Increased collaboration with European universities, African diaspora networks, and development NGOs can also enrich civic learning while equipping students with applied agricultural and sustainability skills.
5. **Using technology and digital civic engagement tools and platforms** to train young people in the skills needed to participate actively in discussions and initiatives. Also, online forums, social media campaigns, and virtual exchanges can help connect youth from diverse regions and backgrounds, fostering dialogue and civic awareness that extends beyond the classroom.
6. **Inclusive Focus:** Ensuring participation of underrepresented groups (rural youth, minorities, youth with disabilities) through tailored programs and support mechanisms.
7. **Gender-Inclusive Training and Entrepreneurship:** Intercultural dialogue initiatives must prioritize inclusivity by addressing the unique barriers faced by women and marginalized groups

5. Key conclusions and recommendations

The findings from AGRI MOCKS partner countries: Germany, Senegal, Ghana, South Africa, Ethiopia, Serbia and Finland confirm the importance of fostering and strengthening intercultural dialogue and civil participation both in the field of higher education and youth training.

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Get acquainted with several key conclusions and recommendations for further development of dialogue and participation.

Main conclusions

- Intercultural dialogue needs greater institutional support, tools and structured programs.
- Digital engagement platforms and structured partnerships can bridge social gaps and expand learning opportunities.
- Digital transformation and environmental initiatives provide new pathways for engagement, particularly in agriculture and rural development.
- Gender-inclusive civic participation programs can boost entrepreneurship and economic opportunities for marginalized youth.

Main recommendations

- **Strengthen Policy Frameworks** – Integrate intercultural dialogue modules into the Education Strategic Plan to ensure structured implementation.
- **Expand International Collaborations** as well as collaboration between HEIs, NGOs, and civic or tech organisations.
- **Enhance Digital Learning** – Develop virtual civic engagement platforms for African and European youth, fostering interdisciplinary knowledge-sharing.
- **Targeted Training for Vulnerable Groups** – Design and deliver accessible civic education programs for youth facing economic and social challenges, ensuring inclusive participation in development efforts.
- **Provide funding** and recognition for youth-led civic initiatives
- Linking voluntary initiatives with employability skills development

References and literature

"Demokratie leben!" (Live Democracy!), [Official Programme Website \(EN/DE\)](#)

Bavaria: [Integration - Bavarian State Ministry of the Interior](#)

Centre for Social Development in Africa (CSDA) – Reports on youth civic engagement
Civic Engagement Policy, Federal Ministry for Education, Family Affairs, Senior Citizens, Women and Youth, 15 May 2025, [bmfsfj.de](#)

Civics Academy South Africa – [www.civicacademy.co.za](#)
[Freudenberg Foundation](#)

German Islam Conference (Deutsche Islam Konferenz), [DIK - Deutsche Islam Konferenz - Startseite](#)

Human Sciences Research Council (2023) - Social Attitudes Survey

Intercultural Dialogue Index (ICDI). (2024). *Ghana's Social Cohesion and Stability Report*.

Kivisto, P and Wahlbeck, Ö. 2013. Debating Multiculturalism in the Nordic Welfare States. In: Kivisto, P and Wahlbeck, Ö (eds.), *Debating Multiculturalism in the Nordic Welfare States*, 1–21. London: Palgrave Macmillan. DOI: https://doi.org/10.1057/9781137318459_1

Krovna organizacija mladih ([KOMS](#))

Lehtonen, T. (2023). Globalisation and Cultural Diversity in the Finnish School Curriculum: Ethical and Critical Perspectives. In: E. Lillqvist, M. Eronen-Valli, V. Manninen, N. Nissilä & E. Salmela (Eds.). *Communicating with Purpose*. Vaasa: VAKKI Publications 15. 251–270. ISBN 978-952-69732-2-7

Lu, W., & Everson Härkälä, T. (2024). International student experience of employment integration in Finland. *Research in Comparative and International Education*, 19(2), 133-152. <https://doi.org/10.1177/17454999241238172>

Mansouri, F., Elias, A (2021). *The Intercultural Dialogue Index (ICDI): An Index for Assessing Intercultural Relations*. *Soc Indic Res* 155, 411–453

Ministry of Education, Ghana. (2018). *Education Strategic Plan (ESP 2018-2030)*.

Munich's Round Table Muslims: [EU Migration Portal Case Study – Munich Round Table Muslims](#)

Narodna Skupština Republike Srbije (2017). *Zakon o osnovama obrazovanja i vaspitanja*. https://www.paragraf.rs/propisi/zakon_o_osnovama_sistema_obrazovanja_i_vaspitanja.html

Narodna Skupština Republike Srbije (2023). *Strategija za mlade za period od 2023. do 2030. godine*. <https://pravno-informacioni-sistem.rs/eli/rep/sgrs/vlada/strategija/2023/9/1/reg>

National Action Plan to Combat Racism and Xenophobia (2019-2024)
[National Commission for Civic Education \(NCCE\)](#).

National Development Plan 2030- South African Government

National Youth Policy 2030 – DQWYPD

North Rhine-Westphalia: [Ministry for Children, Youth, Family, Equality, Refugees and Integration](#)
[Plattform Dialog](#)

Promoting Interculture in Participation in German Urban Planning: Fields of Action for Institutional Change, S. Huning, Ch. Droste and K. Gliemann, TU Dortmund University, Research Gate, Urban Planning 6(2):127-138, April 2021

[Sedarvp-Ghana. \(2021\). *Youth Workers United towards an Intercultural Citizenship*](#)

Star Ghana Foundation (2025). *Akoto Ampaw Active Citizenship Dialogue – Intergenerational Dialogue on Active Citizenship*.

[The Federal Agency for Civic Education \(bpb\) wikipedia page](#)

THL (Finish Institute for Health and Welfare) 2025. Culturally diverse Finland. <https://thl.fi/en/topics/migration-and-cultural-diversity/culturally-diverse-finland>
United Nations Educational, Scientific and Cultural Organization (UNESCO) (n.d). *Intercultural Dialogue, Ghana Country Profile*.

Vlada Republike Srbije (2021). Strategija razvoja vaspitanja i obrazovanja u Republici Srbiji do 2030. godine. <https://pravno-informacioni-sistem.rs/eli/rep/sgrs/vlada/strategija/2021/63/1/reg>