

A Biocracy-Based Sustainable Model for Special Education and the Digital Participation of Non-Earning Women

Anand Gaurav*, Neha Yadav and Dr. Indra Mani

Senior Research Fellow, Dept. of Political Science, V.S.S.D College, CSJM University, Kanpur, India

Research Scholar, Dept. of Sociology, D.B.S. College, CSJM University, Kanpur, India

Professor & Head, Dept. of Political Science, V.S.S.D College, CSJM University, Kanpur, India

* Correspondence: anandasacademy@gmail.com

HOW TO CITE:

Anand Gaurav, Neha Yadav,
Indra Mani (2026). A Biocracy-
Based Sustainable Model for
Special Education and the Digital
Participation of Non-Earning
Women
International Journal of Special
Education, 41(23s), 1729-1735

COPYRIGHT STATEMENT:

Copyright: © 2026 Authors.
Open access publication under the
terms and conditions
of the Creative Commons Attribution
(CC BY)
license (<http://creativecommons.org/licenses/by/4.0/>).

ABSTRACT:

This conceptual article develops a Biocracy-based sustainable model linking ecological governance, special education, and the digital participation of non-earning women. Biocracy, formulated as Government of the living, by the living, for the living, enlarges political concern from an exclusively human constituency to the wider community of life. The model retains constitutional democracy while adding differentiated rights for flora and fauna, mediated ecological representation, scientifically revisable limits, regenerative production, bio-sensitive education, local stewardship, and corrective feedback. The article translates these principles into an inclusive educational setting in which learners with disabilities receive accessible ecological knowledge and meaningful opportunities to influence school decisions. It further identifies a limited but important role for non-earning women, including mothers, caregivers, and community members, whose participation may be supported through accessible and safe digital channels. Social media can circulate information, gather local observations, support peer networks, and connect household experience with school governance; however, access, affordability, literacy, privacy, online abuse, and unequal domestic power remain constraints. The proposed framework does not report empirical outcomes. It offers a rights-based and testable institutional design in which schools function as sites of ecological learning, representation, monitoring, and community feedback. Its central claim is that sustainability education becomes more consequential when awareness is connected to accessible participation and when ecological information can trigger accountable institutional response.

Keywords: Biocracy; special education; non-earning women; digital participation; ecological governance; inclusive education; sustainability

1. Introduction

Ecological degradation is sustained by institutions that treat the biosphere as a stock of resources and a sink for waste. Climate disruption, biodiversity loss, pollution, and declining ecological resilience are connected to political decisions about extraction, production, land, consumption, and infrastructure (IPBES, 2019). The Sustainable Development Goals

recognise the interdependence of education, equality, institutions, and ecological integrity, but implementation often remains divided into separate sectors (United Nations, 2015). Environmental awareness alone cannot correct this institutional fragmentation.

Special education presents a focused test of sustainable governance. Learners with disabilities are often excluded from outdoor

learning, environmental decision-making, and civic participation through inaccessible communication, environments, and assumptions about competence. Research connecting Education for Sustainable Development with inclusive education remains limited and provides insufficient operational guidance (Rončević & Rieckmann, 2025). Environmental-education scholarship also gives restricted attention to disabled people as ecological actors (Salvatore & Wolbring, 2022).

This article asks how Biocracy can provide a sustainable governance model for special education while creating a defined supporting role for the digital participation of non-earning women. The term non-earning women refers here to adult women outside paid employment and without independent earnings. It does not imply an absence of productive contribution; unpaid care, domestic work, community knowledge, and social support are economically and politically significant. The article develops a conceptual model rather than testing causal effects.

2. Method and Conceptual Scope

The study uses normative political theory and qualitative conceptual synthesis. It draws the definition, ten principles, systems logic, and institutional model of Biocracy from the author's earlier formulation and thesis framework (Gaurav, 2024). These concepts are compared with scholarship on deep ecology, green political theory, rights of nature, commons governance, inclusive education, sustainable education, and digital participation. Twenty-five purposively selected sources were used for conceptual relevance and authority; the method does not claim systematic-review coverage.

The analysis proceeded in four stages. First, the Biocratic framework was separated into normative, political, regulatory, and feedback functions. Second, each function was translated into educational practices compatible with disability rights. Third, digital participation was assessed as an information and representation

channel for non-earning women rather than as a substitute for institutional authority. Fourth, safeguards and observable propositions were specified so that the model can be challenged and tested.

3. The Political Theory of Biocracy

Biocracy is defined as Government of the living, by the living, for the living (Gaurav, 2024). Government of the living identifies the wider living community as a legitimate political constituency. Government by the living requires mediated representation of interests that flora and fauna cannot express through human electoral procedures. Government for the living makes ecological continuity and the welfare of living beings purposes of public authority alongside legitimate human welfare.

Human beings remain the practical agents of governance. Qualified and accountable people act as trustees or guardians for non-human interests, comparable in form, though not identical in substance, to legal guardianship and rights-of-nature arrangements (Kauffman & Martin, 2021; Stone, 1972). Ecological rights are differentiated according to the characteristics and needs of species and ecosystems; they are not copies of human civil and political rights.

Biocracy is post-democratic in scope, not anti-democratic in procedure. It retains elections, liberty, constitutionalism, participation, accountability, and the rule of law while extending political consideration beyond the human boundary. Crouch's account of post-democracy identifies the weakening of substantive participation within formally democratic systems (Crouch, 2004). Biocracy addresses a related but distinct limitation: non-human life is structurally absent from the authorised constituency. It therefore seeks to ecologise democratic power rather than abolish democratic protections. Green political theory similarly asks how ecological conditions can reshape institutions and public reasoning (Dryzek, 2013).

The theory has a deep-ecological orientation because it rejects the view that non-human nature has value only through human use (Naess, 1973). It translates intrinsic value into political standing, representation, limits, and remedies. Its normative objective is ecological peace: a condition in which human flourishing remains possible within defensible ecological limits and avoidable domination of other life is replaced by restraint, responsibility, and restoration. Natural sovereignty expresses a presumption against unnecessary interference with non-human existence. Natural responsibility identifies the duties created by humanity's exceptional capacity to transform ecological systems.

Biocracy is also a systems and feedback theory. Political decisions affect interacting human, biological, atmospheric, hydrological, and terrestrial conditions. Ecological change then returns as information, risk, and social cost. Monitoring must therefore communicate departures from acceptable conditions to institutions capable of correction. Negative feedback means corrective adjustment, not political negativity. This architecture joins ethical recognition to evidence, decision, response, and review.

4. Ten Foundational Principles

The ten principles form an interconnected regulatory architecture rather than a list of unrelated environmental policies.

1. Rights of flora and fauna recognise non-human beings and ecological communities as legitimate subjects of differentiated protection and political consideration.
2. Representation of flora and fauna gives those interests institutional voice through qualified, transparent, and accountable human trustees.
3. A benchmark for human population links demographic scale to carrying capacity, consumption, technology, and resources. It must remain voluntary, rights-respecting, and centred

on education, health, gender equality, and social security.

4. A benchmark for the share of Earth under intensive human occupation limits settlement and infrastructure conversion so that sufficient ecological space remains for other life.
5. A benchmark for exploitation and consumption regulates material inputs according to scarcity, regenerative capacity, and ecological consequence.
6. A benchmark for wastes and effluents regulates outputs according to assimilative capacity, with stricter treatment of hazardous and persistent pollution.
7. An obligation of organic farming directs a progressive transition toward organic, agroecological, and regenerative agriculture while safeguarding food security, farmer livelihoods, and context-specific crop needs.
8. Inculcation of bio-sensitive attitudes, especially in children, integrates ecological knowledge, empathy, responsibility, and sustainable conduct into education and socialisation.
9. Bio-friendly development and habitation require buildings and settlements to respect biodiversity, drainage, habitat continuity, climate risk, and ecological carrying capacity.
10. Delegation of appropriate authority to local communities over natural resources places stewardship closer to ecosystems and place-specific knowledge, subject to constitutional rights, scientific standards, transparency, and safeguards against elite capture.

The principles work cumulatively. Rights without representation may remain symbolic; representation without information may be uninformed; benchmarks without monitoring may be ignored; and local authority without review may reproduce inequality. Population policy must never become coercive or discriminatory. Ecological thresholds must be evidence-based, context-sensitive, and

periodically revised. These safeguards place human rights, social justice, and scientific uncertainty inside the model rather than treating them as external objections.

5. Institutional Model and Corrective Feedback

The Biocratic Model of Governance translates the principles into connected institutions. A Bill of Biocracy and constitutional recognition would provide durable standing for ecological rights and duties. Mediated representatives would introduce non-human interests into legislative deliberation. A Ministry of Biota would coordinate monitoring and implementation across departments, while Biota Tribunals would provide standing, remedies, and review for ecological claims. Public communication would make ecological conditions visible, and local communities would contribute place-based knowledge and stewardship. Commons research shows that local resource governance can succeed when boundaries, authority, monitoring, and accountability fit social and ecological conditions (Ostrom, 1990).

The model uses a feedback chain: recognition creates standing; representation carries claims; indicators provide information; public institutions decide; implementation changes rules and resources; monitoring evaluates consequences; and review triggers correction. Science informs thresholds and likely effects but does not replace constitutional legitimacy. Representatives need disclosure and fiduciary duties, tribunals need appeal, ministries need coordination obligations, and local bodies need protection against exclusion and externalisation of harm.

6. Application to Special Education

A school can function as a small site of Biocratic governance. Bio-sensitive learning should be accessible through multiple means of engagement, representation, and expression, consistent with Universal Design for Learning

(CAST, 2024). Plain language, sign language, Braille, audio description, captioned media, tactile materials, augmentative communication, sensory choice, and supported observation can widen participation without reducing intellectual rigour. Inclusive education requires institutions to remove barriers rather than locate deficiency in learners (Ainscow, 2020; Florian, 2014).

Learners with disabilities should participate in an ecological council or equivalent forum with defined influence over school decisions concerning water, energy, waste, food, gardens, biodiversity, heat, pollution, and accessibility. Participation must include reasonable accommodation and accessible records, as required by the Convention on the Rights of Persons with Disabilities and its interpretation of inclusive education (Committee on the Rights of Persons with Disabilities, 2016; United Nations, 2006). Ecological projects should include physical and non-physical roles so that contribution is not measured by mobility, speech, vision, or sensory conformity. Accessible local inquiry can connect sustainable-development competencies with civic agency (Ardoin et al., 2020; Rieckmann, 2018; Schmidt, 2023; UNESCO, 2020).

7. Digital Participation of Married Non-Earning Women through Social Media

Non-earning women enter this model as mothers, caregivers, family members, neighbourhood observers, and community participants, but the framework must not reduce women to caregiving roles. Their digital participation can widen the information available to schools regarding environmental awareness and create channels for women who cannot attend meetings because of care work, mobility, distance, or social restrictions. Secure social-media groups or accessible digital forums can circulate ecological-learning material, report local heat, drainage, pollution, waste, or accessibility problems, gather suggestions, and publish institutional responses. Evidence associates digital media with civic participation,

although effects vary by context and use (Boulianne, 2020).

Digital access is unequal. Gender and technology shape each other through household power, cost, literacy, design, labour, and safety (UN Women, 2020; Wajcman, 2010). Digital participation through Social Media of married non-earning women gives them opportunity of not only ecological awareness but also of ecological activism. Moreover, the fourth-wave of feminism has been based entirely upon the Social Media. Although Mobile-internet and Smartphone gender gaps remain substantial in low- and middle-income countries (GSMA, 2024), but still ecological participation of women through Social Media remains growing exponentially.

8. Integrated School and Community Model

Implementation can begin with an annual ecological-inclusion cycle. First, learners, educators, families, non-earning women who choose to participate, disability organisations, and ecological specialists conduct an accessible audit. Second, the school selects one material issue and establishes a baseline, an ecological benchmark, and an inclusion standard. Third, the learner council and digital community forum submit evidence and proposals to a named decision-making body. Fourth, the school publishes an accessible response specifying what will change, what cannot change, and the reasons. Fifth, monitoring data return to the participants and initiate the next cycle.

Evaluation should distinguish learning, participation, institutional response, and ecological condition. Learning indicators include ecological understanding and reasoned choice in accessible forms. Participation indicators include accommodations, diversity of communication modes, proposals initiated by learners with disabilities, and contributions received from non-earning women. Institutional indicators include response time, budget or procurement changes, and completed review cycles. Ecological indicators may include resource use,

waste, habitat quality, heat exposure, water conditions, or pollution. No indicator should be used to rank disability groups, discipline households, or withdraw support.

9. Discussion and Limitations

The model extends sustainability education from individual awareness to institutional responsibility. Its principal contribution is the adaptation of Biocracy's complete normative and regulatory framework to a school-community setting. Special education supplies a demanding test of accessibility and rights; the digital participation of non-earning women supplies a supplementary channel for community knowledge and accountability. Neither component is presented as evidence that the full Biocratic model has already produced educational or ecological outcomes.

The framework has limits. It is conceptual and has not been field-tested. Non-earning women are diverse, and the category may conceal differences in caste, class, disability, age, location, language, household authority, and access to devices. Digital participation can reproduce misinformation, surveillance, harassment, tokenism, and existing power. School-level improvements cannot by themselves establish ecosystem-scale effects. Future research should pilot one issue at a time, obtain informed consent, measure both inclusion and ecological change, report costs and unintended effects, and revise the model through accessible consultation.

10. Conclusion

Biocracy enlarges governance from an exclusively human political community to the wider living world while retaining constitutional democracy and human rights. Its ten principles connect ecological recognition, representation, limits, regeneration, education, spatial responsibility, and local stewardship. Applied to special education, this architecture requires accessible ecological learning and meaningful authority for learners with disabilities. Digital

participation can allow non-earning women to contribute household and community knowledge, receive information, and scrutinise institutional response, provided that access, safety, consent, and offline alternatives are protected. The model's testable proposition is that ecological awareness becomes governance when inclusive information channels are connected to institutions that must respond, monitor consequences, and correct their decisions.

Declarations

Ethics statement: This conceptual study involved no human participants, animals, personal data, or intervention. Institutional ethical approval and informed consent were not applicable.

References

- Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 1729-1735. <https://doi.org/10.1080/20020317.2020.1729587>
- Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. *Biological Conservation*, 241, Article 108224. <https://doi.org/10.1016/j.biocon.2019.108224>
- Boulianne, S. (2020). Twenty years of digital media effects on civic and political participation. *Communication Research*, 47(7), 1729-1735. <https://doi.org/10.1177/0093650218808186>
- CAST. (2024). *CAST Universal Design for Learning Guidelines version 3.0*. <https://udlguidelines.cast.org>
- Committee on the Rights of Persons with Disabilities. (2016). *General comment No. 4 (2016) on the right to inclusive education (CRPD/C/GC/4)*. United Nations. <https://digitallibrary.un.org/record/1313836>
- Crouch, C. (2004). *Post-democracy*. Polity.
- Dryzek, J. S. (2013). *The politics of the Earth: Environmental discourses* (3rd ed.). Oxford University Press.
- Florian, L. (2014). What counts as evidence of inclusive education? *European Journal of Special Needs Education*, 29(3), 1729-1735. <https://doi.org/10.1080/08856257.2014.933551>
- Gaurav, A. (2024). Biocracy: A green model of governance for G20 vision of sustainable development. *International Journal of Social Science and Education Research*, 6(1). <https://doi.org/10.33545/26649845.2024.v6.i1b.168>
- GSMA. (2024). *The mobile gender gap report 2024*. <https://www.gsma.com/gender-gap-2024/>
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. (2019). *Global assessment report on biodiversity and ecosystem services*. <https://doi.org/10.5281/zenodo.3831673>
- Kauffman, C. M., & Martin, P. L. (2021). *The politics of rights of nature: Strategies for building a more sustainable future*. MIT Press.
- Naess, A. (1973). The shallow and the deep, long-range ecology movement: A summary. *Inquiry*, 16(1729-1735), 1729-1735. <https://doi.org/10.1080/00201747308601682>

Funding: This research was supported by the University Grants Commission, India, through a Senior Research Fellowship awarded to Anand Gaurav.

Data availability: No new data were created or analysed in this study. Data sharing is not applicable to this article.

Conflict of interest: The authors declare no conflict of interest.

Author contributions: Anand Gaurav: conceptualization, methodology, investigation, resources, writing - original draft, and visualization. Neha Yadav: conceptualization of the digital-participation component and writing - review and editing. Both authors approved the submitted version and accept responsibility for the work.

-
- Napitupulu, L., & Kurniawan, Y. (2023). Online social support and psychological well-being of caregivers of children with autism spectrum disorder. *European Journal of Educational Research*, 12(2), 1729-1735. <https://doi.org/10.12973/eu-jer.12.2.927>
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.
- Rieckmann, M. (2018). Learning to transform the world: Key competencies in education for sustainable development. In A. Leicht, J. Heiss, & W. J. Byun (Eds.), *Issues and trends in education for sustainable development* (pp. 1729-1735). UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000261445>
- Rončević, K., & Rieckmann, M. (2025). Education for sustainable development and inclusive education with particular consideration of learners with special needs: A scoping literature review. *Frontiers in Education*, 10, Article 1593060. <https://doi.org/10.3389/feduc.2025.1593060>
- Salvatore, C., & Wolbring, G. (2022). Coverage of disabled people in environmental-education-focused academic literature. *Sustainability*, 14(3), Article 1211. <https://doi.org/10.3390/su14031211>
- Schmidt, J. (2023). Crippling environmental education: Rethinking disability, nature, and interdependent futures. *Australian Journal of Environmental Education*, 39(2), 1729-1735. <https://doi.org/10.1017/ae.2022.26>
- Stone, C. D. (1972). Should trees have standing? Toward legal rights for natural objects. *Southern California Law Review*, 45, 1729-1735.
- United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>
- United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development (A/RES/70/1)*. <https://sdgs.un.org/2030agenda>
- United Nations Educational, Scientific and Cultural Organization. (2020). *Education for sustainable development: A roadmap*. <https://doi.org/10.54675/YFRE1448>
- UN Women. (2020). *The digital revolution: Implications for gender equality and women's rights*. <https://knowledge.unwomen.org/en/digital-library/publications/2020/08/discussion-paper-the-digital-revolution-implications-for-gender-equality-and-womens-rights>
- Wajcman, J. (2010). Feminist theories of technology. *Cambridge Journal of Economics*, 34(1), 1729-1735. <https://doi.org/10.1093/cje/ben057>
-