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# FRANK ADUSAH-POKU

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Kwame Nkrumah University of Science and Technology (KNUST)  
Kumasi-Ghana

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## PROFILE

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Frank Adusah-Poku is an applied micro economist whose research focuses on energy and environmental economics issues such as energy poverty, energy access, energy expenditure, environmental pollution, among others. He is currently a Lecturer at the Department of Economics, KNUST. He is a Research Fellow at the ENRRI-EfD Ghana. He is also Fellow of the 2022-2023 EfD Early Career Fellowship Program and a STAAARS+ Cohort 4 Fellow. He teaches Economics courses both at the graduate and undergraduate levels. He holds a Doctor of Philosophy (Ph.D) degree in Economics from Kobe University, Japan. He also hold a Master of Philosophy (M.Phil) degree in Economics and Bachelor of Arts (B.A) degree in Economics with Statistics, both from the University of Ghana.

## PERSONAL DETAILS

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Date of Birth 28th July, 1988  
Nationality Ghanaian  
Marital Status Married

## EDUCATION

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2016-2019 PhD Economics, Kobe University, Japan  
2012-2014 Mphil Economics, University of Ghana  
2007-2011 BA Economics with Statistics (First Class Honours), University of Ghana  
2003-2006 West Africa Senior Secondary School Certificate (WASSC)), Kumasi High School

## AREAS OF RESEARCH INTEREST

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Energy Economics, Environmental Economics, Development Economics, Applied Microeconometrics.

## PROFESSIONAL EXPERIENCE

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20/8/2023-9/9/2023 Visiting Fellow, Dyson School of Applied Economics & Management, Cornell University  
2023-Date Research Fellow, ENRRI-EfD Ghana  
2022-2023 Cohort 4 Fellow, STAAARS+ Program, Cornell University and PRCI  
2022-2023 Fellow, EfD Early Career Fellowship Program  
2020-Date Lecturer, Department of Economics, KNUST, Kumasi-Ghana  
2020-Date Fellow, Africa Research and Impact Network, Nairobi-Kenya  
2020-2022 Junior Research Fellow, ENRRI-EfD Ghana  
2019-2020 Part-Time Lecturer, Department of Economics, KNUST, Kumasi-Ghana  
2017-2018 Graduate Teaching Assistant, Kobe University, Japan  
2014-2015 Teaching and Research Assistant, Department of Economics, University of Ghana  
2011-2012 Teaching Assistant, Department of Economics, University of Ghana

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## AWARDS AND HONOURS

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2019	Hisa Scholarship, Graduate School of Economics, Kobe University, Japan
2019	Rokkodai Research Excellence Award, Graduate School of Economics, Kobe University
2017	Hisa Scholarship, Graduate School of Economics, Kobe University, Japan
2015-2019	Japanese Government Scholarship, Kobe University, Japan
2013-2014	Makiguchi Scholarship for Foreign Students, Soka University, Japan

## PROJECTS

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2023-2024: Efd Research Fund (Ms-number: 1317): "Solar-powered irrigation systems and resilience to climate change: a viability analysis" (In progress). **Co-principal Investigator**

2023: Efd Research Fund for Early-Career Fellows (Ms-number: 1473) : "Energy efficiency, innovation and Productivity of female-owned enterprises in selected East and West African countries" (In progress). **Co-principal investigator**

2022: IGC (Project Code: GHA-22127): "Trends and Distribution of housing deficit and quality in Ghana (2000 to 2021): Evidence from two national surveys"(Completed). **Co-principal investigator**

2022: IGC (Project Code: GHA-22126):"The Impact of Housing Quality on Child Survival in Ghana" (Completed). **Co-principal investigator**

2014: USAID and Duke University: "Ghana Strengthening Accountability Mechanism (GSAM)"(Completed). **Field Supervisor**

## PUBLICATIONS

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1. Twumasi, A.M., **Adusah-Poku, F.**, Acheampomg, O.A., Opoku, O.E.E. (2024). Residential energy expenditures and the relevance of financial inclusion across location, wealth quintiles and household structures. *Heliyon*,10(5), pp. 1-16. <https://doi.org/10.1016/j.heliyon.2024.e26710>.
2. Adjei-Mantey, K., **Adusah-Poku, F.**, Adjei-Kwakwa, P. (2023). International Tourism, exchange rate and renewable energy: Do they boost or burden efforts towards a low carbon economy in a selected African countries?. *Cogent Economics and Finance*, 11:2, 2245258, pp.1-19. [DOI:10.1080/23322039.2023.2245258](https://doi.org/10.1080/23322039.2023.2245258).
3. E.F. Oteng-Abayie., Dramani, J.B., M. Sulemana., **Adusah-Poku, F.** (2023). The asymmetric effects of oil price shocks on aggregate demand for goods and services in Ghana . *Journal of Energy*, Vol. 2023, pp.1-11. <https://doi.org/10.1155/2023/1692552> <https://doi.org/10.1016/j.esr.2023.101090>.
4. E.F. Oteng-Abayie., Dramani, J.B., **Adusah-Poku, F.**, Amanor, K., Quartey, J.D. (2023). Decomposition and Drivers of energy intensity in Ghana. *Energy Strategy Reviews*, Vol. 47, pp.1-12. <https://doi.org/10.1016/j.esr.2023.101090>.
5. Adjei-Mantey, K., Adjei Kwakwa, P., **Adusah-Poku, F.**(2022). Unraveling the effect of gender dimensions and wood fuel usage on household food security: evidence from Ghana. *Heliyon*, Vol. 8, Issue. 11, pp.1-20. <https://doi.org/10.1016/j.heliyon.2022.e11268>.
6. **Adusah-Poku, F.**, Dramani, J.B., Adjei-Mantey, K. (2022). Does the choice of cooking fuel empower Ghanaian women? An empirical analysis. *Development Southern Africa*. <https://doi.org/10.1080/0376835X.2022.2135489>

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7. Adjei Kwakwa, P., Adjei-Mantey, K., **Adusah-Poku, F.** (2022).The effect of transport services and ICTs on carbon dioxide emissions in South Africa. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-022-22863-7>.
  8. Nkansah, K., Takyi, P.O.,Sakyi, D., **Adusah-Poku, F.** (2022). Economic integration agreements and export survival in Ghana., *Journal of African Trade*, <https://doi.org/10.1007/s44232-022-00001-z>.
  9. Tabiri, G.K., **Adusah-Poku, F.**, and Novignon, J. (2022). Economic inequalities and rural-urban disparities in clean cooking fuel use in Ghana., *Energy for Sustainable Development*, Vol. 68, pp.480-489. <https://doi.org/10.1016/j.esd.2022.05.001>
  - 10.**Adusah-Poku, F.**, Adams, S., Adjei-Mantey, K. (2022). Does the gender of the household head affect household energy choice in Ghana? An empirical analysis *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-022-02293-8>.
  11. Martey, E., Etwire, P.M., **Adusah-Poku, F.**, and Akoto, I. (2022). Off-farm work, cooking energy choice and time poverty in Ghana: An empirical analysis., *Energy Policy*, Vol. 163, pp.1-11. <https://doi.org/10.1016/j.enpol.2022.112853>.
  12. Nayaga, P., **Adusah-Poku, F.**, Dramani, J.B., and Takyi, P.O. (2021). The Threshold effect of electricity consumption and urbanization on carbon dioxide emissions in Ghana., *Management of Environmental Quality*, Vol.33. No.3, pp.586-604.<https://doi.org/10.1108/MEQ-09-2021-0229>
  13. Adjei-Mantey, K., and **Adusah-Poku, F.** (2021). Energy efficiency and electricity expenditure: An analysis of risk and time preferences on light bulb use in Ghana., *Resources, Conservation & Recycling Advances*, Vol. 12, pp. 1-7.<https://doi.org/10.1016/j.rcradv.2021.200061>
  14. **Adusah-Poku, F.**, Bosco Dramani, J. and Adjei-Mantey, K. (2021). Determinants of electricity demand in Ghana: the role of power crises., *International Journal of Sustainable Energy*, Vol.41, Issue.6, pp.699-712.<https://doi.org/10.1080/14786451.2021.1974440>
  15. Kwakwa, P.A., **Adusah-Poku, F.**, and Adjei-Mantey, K. (2021). Towards the attainment of sustainable development goal 7: what determines clean energy sustainability in sub-Saharan Africa?. *Green Finance*, Vol. 3, No. 3, pp.268-286. DOI: [10.3934/GF.2021014](https://doi.org/10.3934/GF.2021014)
  16. **Adusah-Poku, F.**, Adjei-Mantey, K. and Kwakwa, P.A. (2021). Are energy poor households also poor? Evidence from Ghana., *Poverty and Public Policy*, Vol. 13 (1), pp.32-58. <https://doi.org/10.1002/pop4.301>
  17. Kwakwa, P.A., and **Adusah-Poku, F.** (2020). The Carbon dioxide emission effects of domestic credit and manufacturing indicators in South Africa., *Management of Environmental Quality*, Vol.31, No.6, pp.1531-1548.<https://doi.org/10.1108/MEQ-11-2019-0245>
  18. Kwakwa, P.A., and **Adusah-Poku, F.** (2019). Determinants of Electricity Consumption and Energy Intensity in South Africa. *Green Finance*, Vol.1, No. 4, pp. 387-404.DOI: [10.3934/GF.2019.4.387](https://doi.org/10.3934/GF.2019.4.387)
  19. **Adusah-Poku, F.**, and Takeuchi, K. (2019). Determinants and Welfare Impacts of Rural Electrification in Ghana. *Energy for Sustainable Development* , Vol. 52, pp. 1-11. <https://doi.org/10.1016/j.esd.2019.07.004>
  20. **Adusah-Poku, F.**, and Takeuchi, K. (2019). Energy Poverty in Ghana: Any Progress So Far? *Renewable and Sustainable Energy Reviews*, Vol.112, pp. 853-864.<https://doi.org/10.1016/j.rser.2019.06.038>

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21. **Adusah-Poku, F.**, and Takeuchi, K. (2019). Household Energy Expenditure in Ghana: A Double-Hurdle Model Approach. *World Development*, Vol. 117, pp. 266-277.  
<https://doi.org/10.1016/j.worlddev.2019.01.018>
  22. **Adusah-Poku, F.**, and Bekoe, W. (2018). Does the Form Matter? Foreign Capital Inflows and Economic Growth in Ghana. *Journal of Economics and Econometrics*, Vol. 61, No. 3, pp. 39-74.  
[RePEc:eei:journl:v:61:y:2018:i:3:p:39-74](https://doi.org/10.1016/j.jecon.2018.03.001)
  23. Abakah, E.J.A., and **Adusah-Poku, F.** (2016). Budget Deficits and Stock Market Returns: Evidence from Ghana. *Journal of Finance and Economics*, Vol.4, No.4, pp.113-117.  
[DOI:10.12691/jfe-4-4-3](https://doi.org/10.1016/j.jfe.2016.04.001)
  24. **Adusah-Poku, F.** (2016). Carbon Dioxide Emissions, Urbanization and Population: Empirical Evidence in Sub-Saharan Africa. *Energy Economics Letters*, Vol.3, No.1, pp. 1-16.  
<https://doi.org/10.18488/journal.82/2016.3.1/82.1.1.16>
  25. **Adusah-Poku, F.** (2016). Which Form of Foreign Capital Inflows Enhance Economic Growth? Empirical Evidence in Sub-Saharan Africa. *Asian Economic and Financial Review*, Vol. 6, No.10, pp. 557-570. <https://doi.org/10.18488/journal.aefr/2016.6.10/102.10.557.570>
  26. Twerefou, D.K., **Adusah-Poku, F.**, and Bekoe, W. (2016). An Empirical Examination of the Environmental Kuznets Curve Hypothesis for Carbon Dioxide Emissions in Ghana: An ARDL Approach. *Environmental and Socio-economic Studies*, Vol.4, No.4, pp.1-12.  
[DOI: 10.1515/environ-2016-0019](https://doi.org/10.1515/environ-2016-0019)

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## BOOK CHAPTER

1. Kwakwa, P.A., **Adusah-Poku, F.**, Adjei-Martey, K. (2021). Towards Sustainable Environment: Does Electricity Crisis Matter for the Effect of Industrialisation and Urbanisation on Carbon Dioxide Emissions?. In: Adae E.K., Kosiba J.P.B., Hinson R.E., Twum K.K., Newman N., Nutsugah F.F. (eds), Responsible Management in Emerging Markets. Sustainable Development Goals Series. Palgrave Macmillan, Cham.  
[https://doi.org/10.1007/978-3-030-76563-7\\_12](https://doi.org/10.1007/978-3-030-76563-7_12).

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## WORKING PAPER

- Adjei-Mantey, K., and **Adusah-Poku, F.** (2019). Natural Disasters and Economic Growth in Africa.  
<https://mpira.ub.uni-muenchen.de/95588/>

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## NON-ACADEMIC PUBLICATION

- ”Power demand in Ghana has dipped after ever crisis:the drivers and consequences”.Published by **The Conversation** on May 31st, 2022.  
<https://theconversation.com/power-demand-in-ghana-has-dipped-after-every-crisis-the-drivers-and-consequences-1>

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## CONFERENCES AND PRESENTATIONS

- 1.Climate Change Resilience, Adaptation Sustainable Rural Transformation International Conference, KNUST-Kumasi-Ghana (Buidling Stronger Universities III Project in Collaboration with its Danish Partners), October 4-5, 2022 (**Participant**)
2. Sixth annual meeting of the Sustainable Energy Transitions Initiative (SETI) 2021 Virtual Workshop, June 17-19, 2021 (**Presenter**).

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3. 8th Congress of the East Asian Association of Environmental and Resource Economics (EAAERE), Beijing, China on August 2nd-4th, 2019 (**Presenter**).
  4. 7th Congress of the East Asian Association of Environmental and Resource Economics (EAAERE), Singapore on August 5th-7th, 2017 (**Presenter**)
  5. G7 Complex Contract Negotiations (CONNEX) Initiative International Conference on Capacity Building and Transparency in Tokyo, Japan on September 15th-16th, 2016 (**Participant**)
  6. 18th Annual Conference of the African Econometric Society (AES) in Accra, Ghana, July 2013 (**Participant**)
  7. GDN 15th Annual Global Development Conference in Accra, Ghana on June 18th-20th, 2014 (**Participant**)
  8. First Annual School of Social Sciences Colloquium on the theme: Theory and Practice of Social Sciences in a changing world, University of Ghana, April 2015 (**Participant**)
  9. International Research Conference on Multidisciplinary Research and Transformation in Africa, College of Humanities, University of Ghana, June 2015 (**Participant**)

## **COURSES TAUGHT**

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Energy Markets and Energy Security (Graduate), Department of Economics, KNUST.  
Microeconomics (Graduate) and Microeconomic Theory (Graduate), Department of Economics, KNUST.  
Intermediate Microeconomics (Undergraduate), Department of Economics, KNUST.  
Programme and Policy Evaluation (Graduate), Department of Economics, KNUST.  
Elements of Economics (Undergraduate), Department of Economics, KNUST.  
Environmental and Resource Economics (Undergraduate), Department of Environmental Science, KNUST.

## **SERVICE TO THE UNIVERSITY (KNUST)**

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1. Examinations Officer, Department of Economics, KNUST. November 1, 2023-Date.
2. Member, Transport Committee, Faculty of Social Sciences, KNUST. December 19, 2022-Date.
3. Member, Procurement Committee, Faculty of Social Sciences, KNUST. December 16, 2022-Date.
4. Member, Facility and Food Court Committee, Faculty of Social Sciences, KNUST. December 14, 2022-Date.
5. IDL Examinations Officer, Department of Economics, KNUST. November 2022-Date.
6. Assistant Examinations Officer, Department of Economics, KNUST, November 2022-Date.
7. Member, KNUST Green Energy Challenge Judging Panel. June, 2022-April, 2023.
8. Member, COVID-19 protocol Enforcement Committee, Faculty of Social Sciences. March 2022-March 2023.
9. Member, Department of Economics Accreditation Committee, KNUST. February 2022-Date.
10. Member, Restructuring of Courses Committee, Faculty of Social Sciences, KNUST. February 2022-Date.
11. Member, Environment and Agricultural Economics Research Unit, Department of Economics, KNUST. April 2021-Date.
12. Member, COVID 19 Protocol Enforcement Committee, Faculty of Social Science, KNUST, January 2021-Dec 2021.
13. COVID 19 Focal Person, Department of Economics, KNUST. January 2021-December 2021.
14. Member, Research Center Committee, Department of Economics, KNUST. October 2020-Date.

## **SERVICE TO THE COMMUNITY**

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1. Panelist, webinar on "Africa's Post-COVID Recovery and the role of China through the FOCAC Nine programs-Ghana as a case study" organized by the Afro-Sino Center of International Relations (ASCIR).
2. Guest Speaker, Ghana Students Union Japan (GSU Japan) Interactive Talk Series on the topic "Preparing for life after the academic journey in Japan" on February 26th, 2022 (virtual)

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3. Guest Speaker, EXIT STRATEGY SUMMIT 2021, KNUST edition on the topic "The Prospects of Higher Education" on July 24th, 2021 at the Engineering Auditorium, KNUST.

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## TRAINING WORKSHOPS/SHORT COURSES

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1. Facilitator, *Data Analysis Seminar for postgraduate students*, 2021, IDL, KNUST
2. Facilitator, *Data Analysis Seminar & Scientific Writing with STATA*, 2020, Department of Economics, KNUST.

## THESIS SUPERVISION

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### Undergraduate

- Supervised more than 35 undergraduate students theses. List available upon request

### Graduate

- Supervised more than 10 MSC. graduate students theses. List available upon request
- 2023: Stephanie Acheampong (Mphil): "Ecological Footprint of Natural Resources Extraction in Africa" (**In progress**)
- 2023: Samuel Asamoah (Mphil): "Electricity Access and Agricultural Productivity in Rural Ghana" (**In progress**)
- 2022: Fauzul Azim Yahuza (Mphil): "Effect of Off-farm income on energy expenditure in Ghana" (**In progress**)
- 2022: Millicent Nimakoh (Mphil): "Household air pollution and Respiratory Health outcomes of women in Ghana: Do clean cooking fuels mitigate the effects?" (**Graduated**)
- 2021: Paul Nayaga (Mphil): "The Threshold effect of electricity consumption and Urbanization on Carbon dioxide emissions in Ghana" (**Graduated**)
- 2021: Miracle Kwasi Ametepe (Mphil): "The Impact of Financial Development on Carbon dioxide emissions: Do proxies matter?" (**Graduated**)

## NON-DEGREE CERTIFICATES

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1. Content and Language Integrated Learning (CLIL) Approaches to Teaching in Higher Education Program from the Institute of Continuing & Tesol Education, University of Queensland, Australia from March 4th-8th, 2019.
2. Certificate of Participation, Japan-Asia Studies Program (Graduate Exchange Student), Soka University, Japan from September 2013-February, 2014.

## PROFESSIONAL MEMBERSHIP

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East Asian Association of Environmental and Resource Economics (EAAERE)

## PROFESSIONAL SERVICES

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Reviewer: Cogent Social Sciences; Cogent Business and Management; Sustainable Futures; The Energy Journal, Energy Economics, Energy, Development and Sustainability, Economics Bulletin, Energy Strategy Reviews, Energy.

## SOFTWARE AND PROGRAMMING SKILLS

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Econometrics and Data Analysis Software: STATA, R, EViews, Microfit.  
Production of Technical and Scientific Documentations: Microsoft Office Suite and Latex.

## LANGUAGES

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English: Speaking(Advanced); Writing (Advanced); Reading (Advanced)  
Japanese: Speaking(Basic); Writing (Basic); Reading (Basic)  
Ghanaian Language (Twi): Speaking(Native); Writing (Native); Reading (Native).

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## REFERENCES

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Prof. Kenji Takeuchi  
Professor  
Graduate School of Global Environmental Studies  
Kyoto University  
Kyoto, Japan  
Email: takeuchi@econ.kyoto-u.ac.jp

Prof. Kaiji Motegi  
Associate Professor  
Graduate School of Economics  
Kobe University  
Kobe, Japan.  
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Prof. D.K.Twerefou  
Associate Professor  
Department of Economics  
University of Ghana  
Legon-Accra, Ghana  
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Prof. Eric Fosu Oteng Abayie  
Associate Professor  
Department of Economics  
KNUST  
Kumasi, Ghana.  
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