



## THE Impact Rankings Questionnaire

University : Universitas Indonesia  
Country : Indonesia  
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[17] SDG17: Partnerships for the Goals  
[17.2] Relationships to support the goals.  
[17.2.4] Collaboration for SDG best practice Through international collaboration and research, review comparative approaches and develop international best practice on tackling the SDGs.

### **RESEARCH COLLABORATION - MELBOURNE UNIVERSITY “ENHANCING LOCAL CAPACITY FOR IMPLEMENTING TRANSBOUNDARY REVITALISATION POLICIES FOR THE CITARUM RIVER”**

Research collaboration between Universitas Indonesia, Melbourne University and APN (Asia-Pacific Network for Global Change Research)

Principal Investigator:

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Since 1989, countless efforts have been made and numerous funds have been spent to revitalize Citarum River. Each government regime has suggested different programs and has their own achievements. Nevertheless, Citarum River has remained polluted, compared with pre-existing conditions such as in upstream Cisanti, which is caused by, among others, governance failure. Citarum River governance is very complex in the context of varied technical and non-technical issues shaped by various local specific conditions, such as geographical, geological, topographical, physiographical, socio-economic, and cultural backgrounds, government systems and political considerations, and the availability of resources and funds for river revitalization programs.

Our suggested recommendations are based on empirical findings in Bandung Regency and Cimahi City on how capacity for policy implementation at the Regency/City level has been constrained and at the same time supported by certain socio-institutional conditions. These

findings are then generalized and conceptualized to help solve governance problems that hinder policy implementation in the Citarum River. These problems are: 1) Top-down coordination within the framework of regional autonomy; 2) The conflict of interest of the public versus the market in the midst of the duality of actor-roles; 3) A lack of comprehensive approach to river governance (IWRM) and superhero institutions with limited authority and minimal budget; and 4) Military quick wins and concerns about the sustainability of the program, which are related to the reduced work commitment of local officials and reduced community participation.

Three recommended governance perspectives for improving policy implementation are: 1) Thinking beyond the command-and-control concept and moving towards systematic change; 2) Facilitating and assisting the participation of non-state actors; 3) Bridging the gap between science and the state and society (science-state-society) through active frontline leadership.

The three governance perspectives to improve the implementation of this policy require six enabling factors, namely: 1) Awareness of shared problems; 2) Political and financial commitments; 3) Exercise of authorities based on laws and law enforcement; 4) Committed leaders and active front-liners; 5) Key actors/organizations that can act as boundary spanners; and 6) Strong community participation. Vocational and training providers expressed their commitment to gender equality in their treatment of students and intention to break the norms that food processing is a specialization suited to 'girls'.

**Evidence**      **Link:**      [https://www.apn-gcr.org/wp-content/uploads/2023/06/Policy-Brief\\_EN.pdf](https://www.apn-gcr.org/wp-content/uploads/2023/06/Policy-Brief_EN.pdf)

## RESEARCH COLLABORATION - KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY (KIST) SCHOOL, "COFFEE WASTE UTILIZATION FOR SYNTHESIS OF TWO-DIMENSIONAL CARBON-BASED MATERIAL FOR CATALYTIC REACTION"

Research collaboration between Universitas Indonesia and Korea Institute of Science and Technology (KIST) School, Korea Selatan

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Coffee is one of the plantation products with high economic value and can be used as a strategic commodity for developing the country's economy. However, coffee ground waste contains organic compounds that are harmful to the environment. The use of coffee grounds waste as a carbon material precursor has been widely carried out because coffee grounds have a high carbon content. In this study, coffee grounds from pyrolysis produced graphite coffee grounds. The resulting coffee grounds graphite is then used as the main precursor in the modification of graphite into graphene nanosheets using the liquid exfoliation method with the help of surfactants, where in the process, two types of surfactants were used, namely anionic (SDS) and cationic (CTAB). The modified graphene nanosheets were then characterized using Raman spectroscopy, XRD, and SEM. Raman spectroscopic characterization results proved that there is a change in intensity in the D and G bands, which indicates a change in the structure of the graphite material. The SEM characterization results showed a morphological change from the amorphous structure of graphite to a thin layer as in graphene. BET analysis was carried out and showed a change in the sample's surface area and pore size. The application of Graphene nanosheets produced on the adsorption of Rhodamine B compounds showed an increase in adsorption before modification and after modification to graphene, which was originally 18.74 % at 5 ppm to 54.14% (G-25 Coffee/SDS), 22.67% (G -25 Coffee/CTAB).), 76.17% (GS Coffee/SDS), and 66.56% (GS Coffee/CTAB).

**Evidence Link:** <https://scholar.ui.ac.id/en/publications/effect-of-surfactant-in-modification-of-graphite-into-graphene-na>