



GOVERNMENT COLLEGE

RAJAHMUNDRY, ANDHRA PRADESH | **AUTONOMOUS**

ISO - 21001 : 2018, ACCREDITED BY - NAAC - A+

AFFILIATED TO ADIKAVI NANNAYA UNIVERSITY

DEPARTMENT OF ECONOMICS

REPORT ON

EDUCATIONAL FIELD VISIT POLAVARAM IRRIGATION PROJECT

Head Works | 19 September 2026



ACADEMIC YEAR

2026-27

PARTICIPANTS

33 Students + 7 Faculty

MODE OF TRAVEL

HI-GLOW College Bus

Permission: Water Resources Department, Govt. of Andhra Pradesh (Lr.No. 592M dated 11.09.2026)

Convened by

Dr. Rajana Balayya, Head of the Department of Economics

GOVERNMENT COLLEGE (AUTONOMOUS), RAJAHMUNDRY

Department of Economics

REPORT ON EDUCATIONAL FIELD VISIT TO POLAVARAM IRRIGATION PROJECT HEAD WORKS

Academic Year 2026-27 | Experiential Learning Activity

1. Basic Details of the Activity

Title of Activity	Educational Field Visit (Study Tour) to Polavaram Irrigation Project Head Works
Organised by	Department of Economics, Government College (Autonomous), Rajahmundry
Date of Visit	19 September 2026 (one-day visit)
Participants	33 final-year students of Economics and 7 faculty members (total 40)
Convened by	Dr. Rajana Balayya, Head of the Department of Economics
Transport	HI-GLOW bus facility of the College (approved by the Principal on the request dated 10.09.2026)
Permission	Water Resources Department, Govt. of Andhra Pradesh, Lr.No. SE/PIPHW/OT.1/AEE.5/M/2/Vol.41/592M dated 11.09.2026, issued by the Superintending Engineer (FAC), PIPHW Circle, Dowlaiswaram
Officers deputed	Sri Ch. Vijaya Kumar, D.E.E. and Sri V. Patabhi Ramayya Chowdary, A.E.E., PIPHW Division No.6, Purushothapatnam

2. Introduction and Objectives

The Polavaram Irrigation Project on the river Godavari is a multipurpose project of the Government of Andhra Pradesh, executed with the Polavaram Project Authority, Government of India. It is among the largest irrigation and hydro-power undertakings in the country and is central to discussions on irrigation economics, agricultural productivity, regional development and rehabilitation. The Department of Economics organised this visit so that final-year students could link classroom learning on development economics, agricultural economics and public finance with a working large-scale public infrastructure project.

- To give students first-hand exposure to the scale, engineering features and construction of the Polavaram project.
- To help students understand irrigation implementation, water management and the role of public investment in rural and regional development.
- To encourage observation, questioning and note-taking through direct interaction with engineers and officials.
- To strengthen experiential learning as part of the curriculum and the academic culture of the College.

3. Permissions and Safety Compliance

The Head of the Department submitted the request on 10.09.2026, and the Principal forwarded it to the HI-GLOW Coordinator for arranging the bus. The Water Resources Department accorded permission on 11.09.2026 for the site visit on 19.09.2026 on the following conditions, all of which were communicated to participants and followed during the visit: (i) accommodation, transport and food to be borne by the individuals; (ii) utmost care near heavy machinery movement, blasting operations and other brisk work activities, as WRD does not take responsibility for the safety of members; (iii) all members to carry valid Identity Cards; (iv) photography prohibited at the project site except a few photographs with the permission of the deputed Officer-in-Charge; and (v) registration numbers of the buses to be intimated one day in advance to the Officer-in-Charge, Sri S. Madhava Rao, Deputy Executive Engineer, PIPHW Division No.1, Polavaram, for entry at the checkpoint.

4. About the Project: Salient Features Shared During the Visit

Component	Salient features (as per the project fact sheet)
Earth-cum-rock-fill dam	Gap I: 564 m long, top of bund +53.320 m, top width 12.50 m, diaphragm wall 394 m. Gap II: 1750 m long, top width 15 m, diaphragm wall about 1750 m (1.50 m thick).
Concrete dam (Gap III)	Length 153.50 m, top of bund +53.320 m, top width 8.50 m.
Spillway	Length 1118.90 m with 48 radial crest gates (16 m x 20 m each), electrically operated hydraulic hoists; crest level +25.72 m; full reservoir level +45.72 m.
Flood capacity	Maximum flood discharge 1.02 lakh cumecs (36 lakh cusecs); probable maximum flood 50 lakh cusecs.
River sluice	10 gates of 2.1 m x 3.0 m; bottom level +17.30 m.
Power house	12 units of 80 MW each; total power generation 960 MW.
Channels and coffer dams	Spill channel 2920 m; pilot channel 1000 m; upstream coffer dam 2480 m; downstream coffer dam 1630 m.
Tunnels and canals	Twin tunnels (Packages 63 and 64) of 11.80 m width carrying 566 cumecs; navigation tunnel 890 m (Package 66); navigation canal 4.475 km with 3 locks (Package 67).

5. Proceedings of the Visit

On 19 September 2026 the students and faculty, after a group photograph with the department banner, travelled to Polavaram in the HI-GLOW bus. At the project site the group was guided by the project officials, and the visit covered the following.

- **Briefing at the project model:** engineers explained the layout of the spillway, dam alignments, powerhouse and switch yard on a scale model, which gave students an overall picture before going to the site.
- **Dam top and viewpoint:** the group viewed the head works, spillway and the wide reservoir area from the dam top and the hill viewpoint, and learnt about the gates, flood handling capacity and storage levels.
- **Dam construction area:** officers explained earth-cum-rock-fill dam works, the movement of heavy machinery and construction materials, and the safety discipline needed at a live construction site.
- **Powerhouse area:** students observed the large structural works and learnt how the 960 MW hydro-power component forms part of the multipurpose design.
- **Interaction:** students noted down key figures in their notebooks and asked questions on costs, benefits, irrigation potential, displacement and rehabilitation, and the project timeline.

6. Photographs of the Visit



Photo 1. Faculty and students with the department banner before departure by the HI-GLOW college bus



Photo 2. Briefing by project officials at the scale model of the Polavaram project



Photo 3. Group photograph at the viewpoint overlooking the reservoir and head works



Photo 4. Students and faculty on the dam top with the reservoir in the background



Photo 5. Group photograph with banner at the earth-cum-rock-fill dam works area



Photo 6. Engineers explaining construction work and materials at the dam site



Photo 7. Field discussion and note-taking with the officer-in-charge



Photo 8. Walking through the head works area during the site visit



Photo 9. Students observing structural works inside the powerhouse area



Photo 10. Faculty and final-year students with project officials at the site

7. Outcomes of the Visit

- **Experiential learning:** students saw irrigation infrastructure, hydro-power and flood-control components that are otherwise studied only through textbooks.
- **Application of economic concepts:** the visit gave practical context for cost-benefit analysis, public investment, agricultural productivity, water as an economic resource, and the social cost of displacement.
- **Awareness of engineering and project management:** students understood the scale, phased execution and coordination across several work packages.
- **Safety and discipline:** the group followed the conditions laid down by the Water Resources Department and carried identity cards throughout.
- **Academic follow-up:** students are encouraged to prepare short reports and presentations and to use the observations in project work, seminars and viva-voce.
- **Institutional benefit:** the visit strengthens the College's linkage with a government department and supports the experiential learning and field-based activities documented for NAAC.

8. Feedback of the Students

- Students said the visit helped them connect irrigation, agriculture and regional development topics with a real project.
- They appreciated the clear explanations by the engineers and the chance to ask questions at the site.
- They were satisfied with the HI-GLOW bus arrangement and the overall organisation of the day.
- They found the safety instructions near heavy machinery clear and easy to follow.
- They suggested more time at each location and similar visits to other development projects every year.

9. Conclusion

The field visit to the Polavaram Irrigation Project met its objectives of experiential learning and exposure to a major national infrastructure project. The Department thanks the Principal, the HI-GLOW Coordinator and the officers of the Water Resources Department (PIPHW Circle, Dowlaiswaram, and Divisions No.1 and No.6) for their permission, guidance and support, and plans to continue such visits in the coming years.

Dr. Rajana Balayya
Head of the Department
Department of Economics