ERF Policy Brief

The Twin Transition in Jordan's Labor Market: Why Green Jobs Need Upgrading

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About the authors

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In a nutshell

- *Jordan's labor market is undergoing a structural shift toward ICT-intensive employment, with 292,000 Jordanian workers (19 per cent) now in ICT roles - more than double the 133,000 (9 per cent) in green jobs. ICT jobs offer clear advantages: higher wages, better benefits, and stronger educational matching.*
- *Green employment is widespread but concentrated in lower-skilled, process-oriented activities with limited wage premiums. However, workers who combine green and ICT competencies earn wages comparable to ICT-only workers, suggesting that the intersection of digital and environmental skills offers a strategic pathway for upgrading green job quality.*
- *Women who enter the labour force participate in both green and ICT employment at higher rates than men, yet face a pronounced quality gap in green-only jobs, where female workers earn just 290–300 JOD monthly compared to 500 JOD in ICT roles. Expanding ICT skills training for women and developing green-tech competencies can address both sectoral growth and gender inclusion.*

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1. Introduction[1]

The global economy is undergoing two profound transformations: the green transition and the digital transition. Both are reshaping labor markets by creating new opportunities, changing skills demand, and raising important questions about job quality and inclusion. Jordan's Economic Modernisation Vision (EMV 2023–2033) positions ICT and green industries at the heart of its growth strategy, setting an ambitious target of creating one million jobs by 2033 through future-oriented sectors such as digital services, renewable energy, sustainable transport, and water efficiency.

Yet while policy attention has focused on projecting the scale of job creation in these sectors, there has been limited systematic evidence on the quality and nature of green and ICT employment. Are these jobs delivering decent wages and benefits? Do they match workers' educational qualifications? And how do they compare to one another?

2. The scale of Green and ICT employment

Using the JLMPS 2025, we identify 133,000 Jordanian workers (9 per cent of total employment) engaged in green activities and 292,000 (19 per cent) in ICT activities. ICT employment is thus more than twice the scale of green employment, and both categories are concentrated in the private sector.

Green employment is predominantly process-oriented, with 75 per cent of green workers engaged in improving environmental performance within existing operations rather than producing dedicated environmental goods and services. Energy efficiency is the dominant green activity, particularly in the private sector, followed by environmental protection and awareness, renewable energy, and water efficiency.

ICT employment is measured using a union definition that combines occupational classifications (based on OECD/ILO ISCO codes) with task-based criteria (workers performing three or more ICT tasks). This approach captures both formally designated ICT positions and the growing set of roles where intensive digital work occurs regardless of formal classification. The union definition identifies substantially more ICT workers than either measure alone, reflecting the diffusion of digital skills across the economy.

Notably, women who enter the labor force participate in both categories at higher rates than men. Female workers show 11 per cent green employment compared to 8 per cent for males, and 26 per cent ICT employment compared to 17 per cent for males. These higher rates reflect the concentration of employed women in professional and technical roles rather than differential access per se, since overall female labor force participation remains very low.

Examining trends over time by applying 2025 occupation-level penetration rates to earlier survey waves, we find a more pronounced structural shift toward ICT-intensive employment than toward green employment. The share of workers in high-ICT occupations increased from 10 to 16 per cent between 2010 and 2025, with employment in these occupations more than doubling from 113,000 to 248,000 workers. Green employment shows more modest intensification, with moderate-green occupations growing from 11 to 16 per cent of employment over the same period.

3. The quality gap between green and ICT employment

The most striking finding of this analysis is the substantial quality gap between green and ICT employment across multiple dimensions.

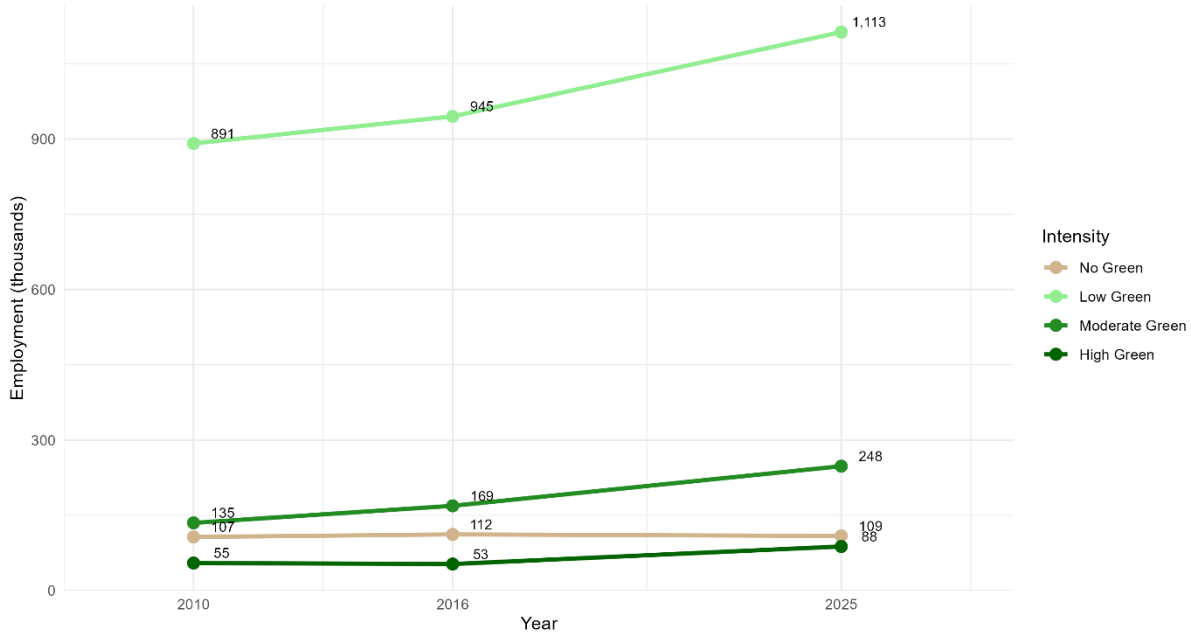
Wages. ICT workers earn a consistent wage premium of 500 JOD monthly compared to 400 JOD for non-ICT workers, across both public and private sectors and both genders. Green workers, by contrast, earn wages largely equivalent to non-green workers at the aggregate level (450 JOD), though female green workers in the private sector face a wage penalty, earning just 300 JOD compared to 350 JOD for non-green female private sector workers.

Benefits. ICT workers enjoy substantially better benefit coverage than non-ICT workers, particularly in the private sector, where ICT workers receive 20–40 percentage points higher rates of social insurance, written contracts, and health insurance. Green workers show benefit patterns largely comparable to non-green employment, with the sector of employment (public versus private) mattering far more than green status.

Educational matching. ICT positions demonstrate substantially better alignment between required and actual education levels: 76–84 per cent of ICT workers possess qualifications appropriate to their positions, compared to just 19–47 per cent for non-ICT workers.

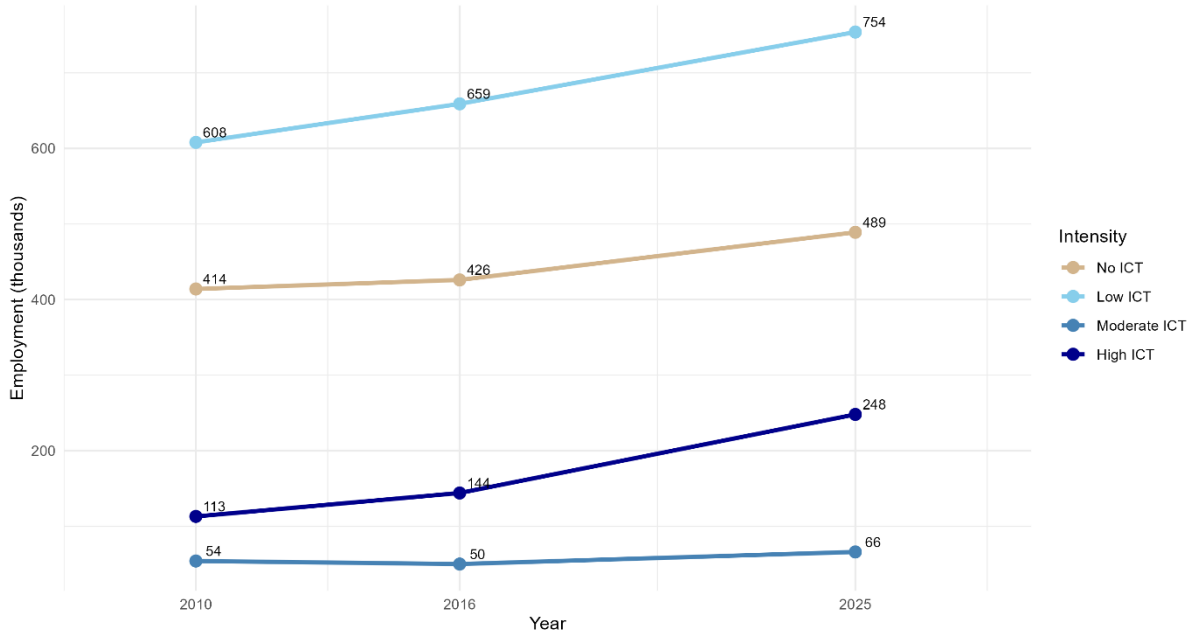
[1] This policy brief draws on Duncan and Shaheen (2026), which uses data from the recently completed 2025 wave of the Jordan Labor Market Panel Survey (JLMPS) to provide the first comprehensive profile of green and ICT employment in Jordan.

Figure 1. Employment by green occupation intensity (in thousands, ages 15-64, 2010-2025



Source: Duncan and Shaheen (2026)

Figure 2. Employment by ICT occupation intensity (in thousands) (union definition, ages 15-64, 2010-2025



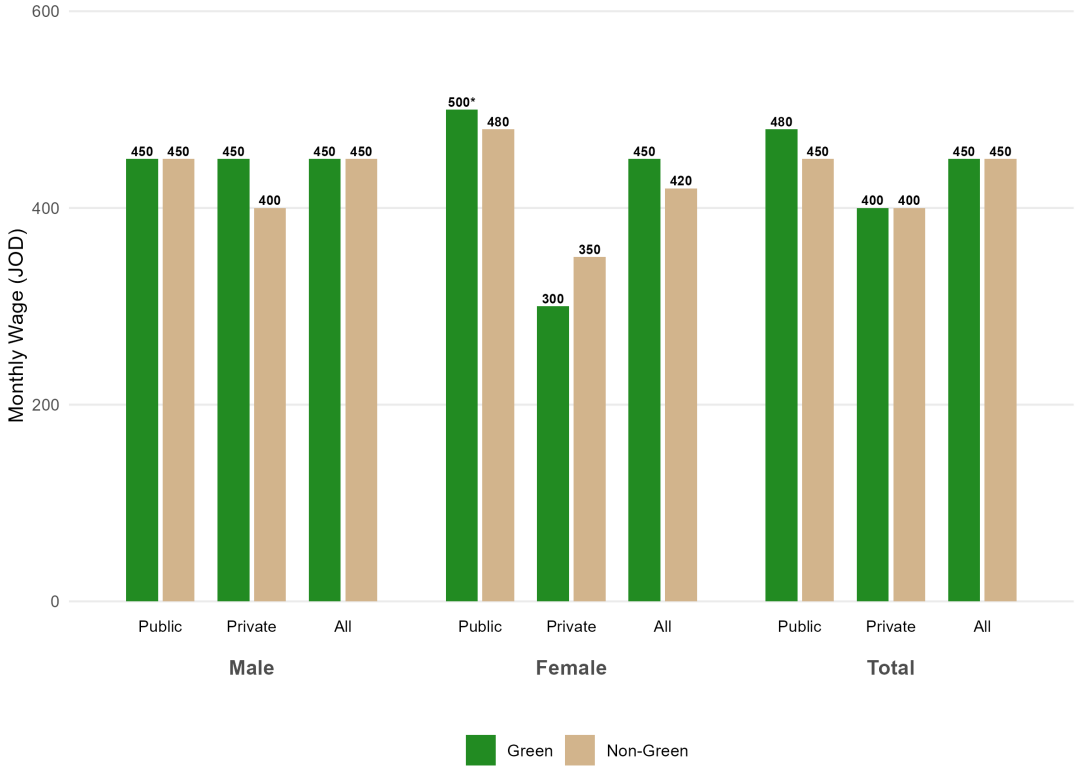
Source: Duncan and Shaheen (2026)

The high rates of overqualification in private sector non-ICT employment (38–61 per cent) compared to ICT roles (9–12 per cent) suggest that ICT positions are more effectively absorbing Jordan's educated workforce.

These patterns indicate that ICT employment in Jordan currently represents a high-quality employment pathway that effectively utilises the country's educated workforce, whilst green employment more closely mirrors broader labor market conditions without delivering a distinctive quality premium.

4. The strategic opportunity at the green-ICT

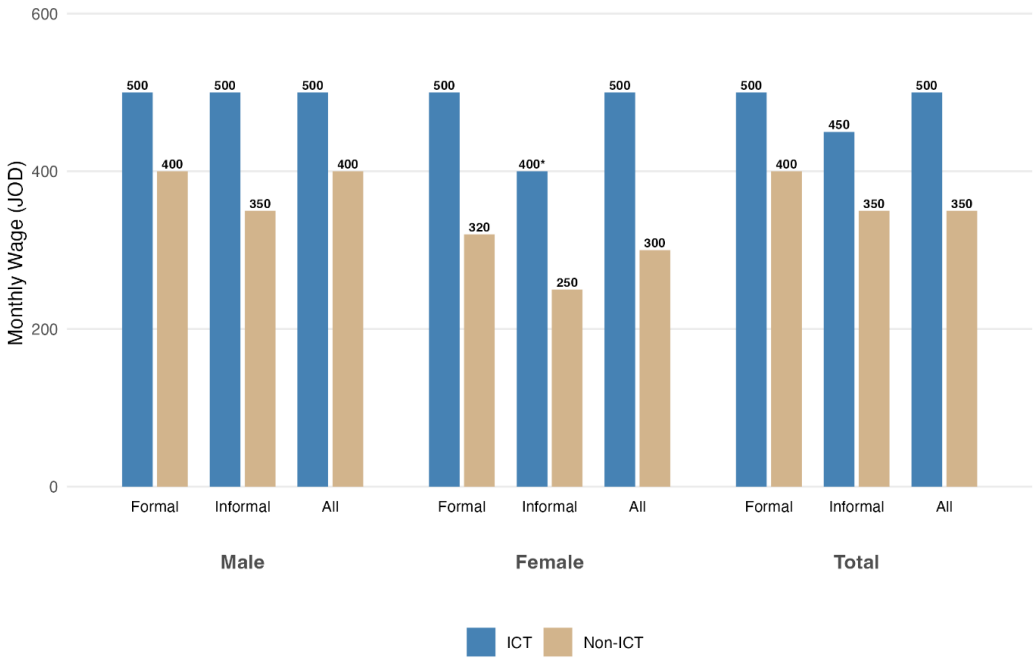
Figure 3. Median monthly wages (JOD) by green job status, institutional sector and gender, ages 15-64, 2025



* Based on <30 observations. Interpret with caution.

Source: Duncan and Shaheen (2026)

Figure 4. Median monthly wages (JOD) by ICT job status and employment formality (private sector only), by gender (union definition), ages 15-64, 2025



* Based on <30 observations. Interpret with caution.

Source: Duncan and Shaheen (2026)

intersection

The comparative analysis of green-only, ICT-only, and combined employment reveals a critical insight for policy. Of the 388,000 Jordanian workers engaged in either green or ICT activities, the vast majority hold positions in one category only: 255,000 in ICT-only roles and 96,000 in green-only roles. Just 37,000 workers (10 per cent of the combined total) hold positions that combine both green and ICT characteristics.

The wage patterns across these three groups are revealing. Workers combining both green and ICT competencies earn 500–600 JOD monthly - comparable to or exceeding ICT-only wages. By contrast, green-only workers earn substantially less: 350-450 JOD for men and just 290-300 JOD for women. The quality differential is particularly pronounced for female workers, where the gender gap is widest in green-only employment.

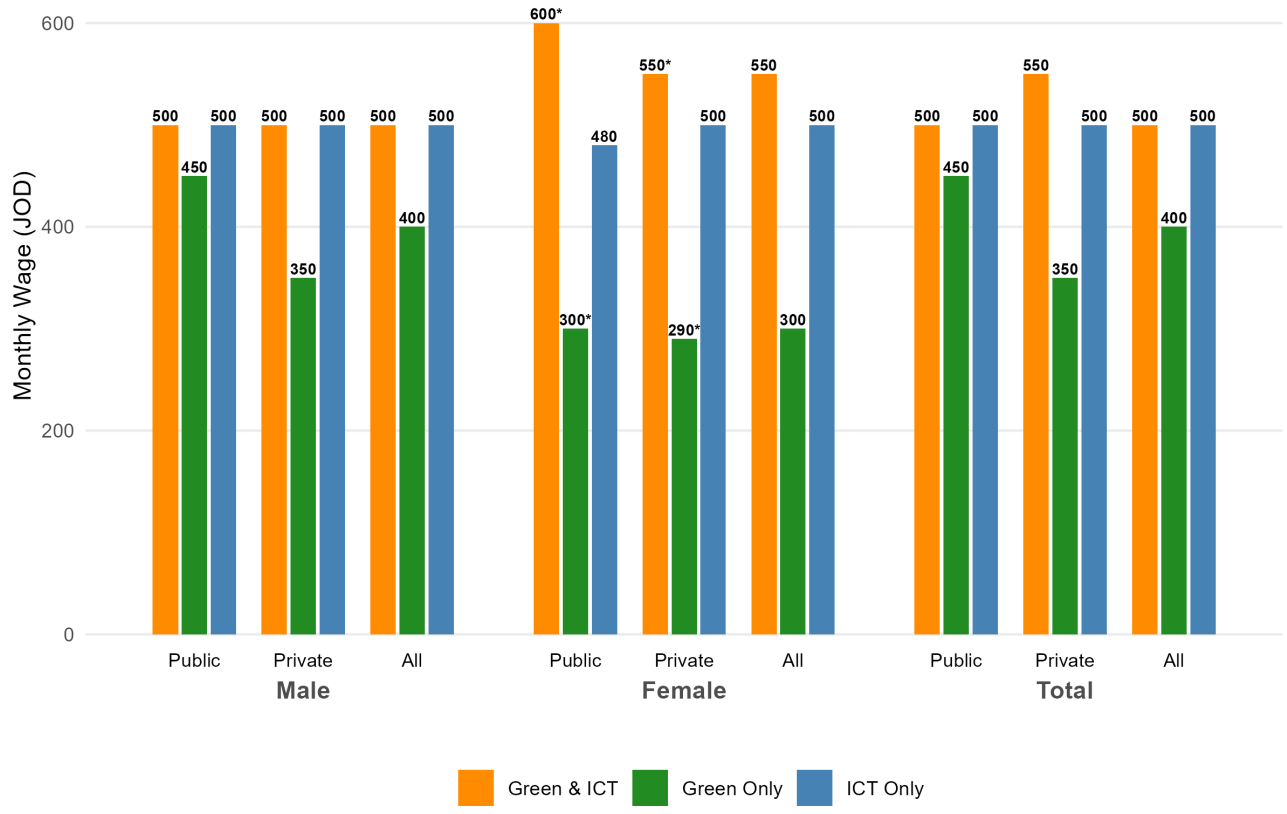
This pattern suggests that well-compensated green jobs are predominantly office-based positions that utilise ICT skills alongside environmental responsibilities, for example roles in environmental monitoring, smart energy management, data-driven sustainability reporting, and similar functions. Pure green employment, without an ICT component, tends to be concentrated in lower-skilled, lower-wage activities.

5. Conclusions and policy implications

The findings point to three priority areas for Jordan's future employment strategy.

Upgrade green job quality. Green employment in Jordan is widespread but currently offers limited advantages over non-green work in terms of wages, benefits, or formality. If green jobs are to serve as a genuine pillar of the EMV's employment strategy, policy interventions must focus on developing higher-value green opportunities that better

Figure 5. Median monthly wages (JOD) for green and ICT jobs by institutional sector and gender (union definition), ages 15-64, 2025



* Based on <30 observations. Interpret with caution.

Source: Duncan and Shaheen (2026)

utilise Jordan's educated workforce. Priority areas include renewable energy technology, environmental consulting, and green finance - sectors where green work can be combined with professional and technical skills to deliver decent employment outcomes.

Invest in green-tech skills at the intersection. The finding that combined green-ICT workers earn wages comparable to ICT-only workers highlights a strategic opportunity. Digital technologies are increasingly essential for environmental monitoring, smart energy systems, and sustainable resource management. Training programmes that develop green-tech competencies, rather than treating green and digital skills as separate tracks, could position Jordan at the forefront of emerging green-tech industries whilst ensuring that green employment offers genuine pathways to economic mobility.

Expand ICT opportunities, particularly for women. ICT employment currently represents Jordan's most effective pathway for absorbing educated workers into quality employment. The relatively more balanced gender participation in ICT roles - particularly under the task-based definition, which shows a 2.5:1 male-to-female ratio compared to 4:1 in formal ICT occupations - indicates that expanding ICT skills training for women could address both sectoral growth and gender inclusion objectives simultaneously. Reducing barriers to women's participation in ICT specialist roles, where they remain underrepresented despite strong task-based engagement, should be a policy priority.

Ultimately, the quality differential between green and ICT jobs suggests that Jordan's future employment strategy should pursue a dual approach: upgrading green employment quality whilst continuing to expand ICT opportunities. Assuming that green job creation automatically delivers decent work outcomes would be a mistake - deliberate integration of environmental policy goals with employment quality objectives is required.

References

Duncan, Jack and Salma Shaheen. 2026. "The Quality of Green and ICT Jobs in Jordan: Evidence from the JLMPS 2025." Economic Research Forum Working Paper Series No. 1830.

ERF at a Glance: *The Economic Research Forum (ERF) is a regional network dedicated to promoting high-quality economic research for sustainable development in the Arab countries, Iran and Turkey. Established in 1993, ERF's core objectives are to build a strong research capacity in the region; to encourage the production of independent, high-quality research; and to disseminate research output to a wide and diverse audience. To achieve these objectives, ERF's portfolio of activities includes managing carefully selected regional research initiatives; providing training and mentoring to junior researchers; and disseminating the research findings through seminars, conferences and a variety of publications. The network is headquartered in Egypt but its affiliates come primarily from different countries in the region.*

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