

Effect of disarmament, demobilization and reintegration of ex-combatants & peace support/keeping operations on economic security

DDR, PSOs, and PKOs have positive short-term benefits, but limited or negative long-term impacts. Overall, there is a small positive average effect.

Geographical region: Sub Saharan Africa, Global

Effect: Small effect ($g = 0.061$)

Confidence in study findings: Low confidence as the majority of studies are low confidence studies

Short summary

DDR, PSOs, and PKOs have a small and time-limited effect on economic security. While one study suggests that PKOs increase GDP per capita, particularly in high-income regions, it indicates a dampening effect in low-income countries. DDR programs may improve economic reintegration and reduce poverty but benefits often fade over time. Peacekeeping deployments may help stabilize local economies, enhance employment, and restore market activity. However, some studies report no or even negative effects on economic security. Short-term economic booms from DDR funding can promote social acceptance, but may not lead to long-term economic stability.

Long summary

The Intervention

Disarmament, demobilisation and reintegration is a complex programme for ex-combatants that brings together reconciliation, security and socio-economic dimensions. The process typically involves removing weapons from combatants' hands, taking individuals out of militarised structures, and providing them with training for new livelihoods as well as psychosocial support

Peace Support Operations (PSOs) and Peacekeeping Operations (PKOs), where

1) PSOs encompass all multi-functional operations, conducted impartially, normally by States or by international or regional organizations, such as the United Nations (UN), the European Union (EU), the African Union (AU), or the North Atlantic Treaty Organization (NATO), involving military forces and diplomatic and humanitarian agencies, and are designed to achieve a long-term political settlement or other specified objective, and

2), the deployment of UN peacekeepers into countries in a post-conflict setting. This involves the deployment of international troops and police, who work with local civilian peacekeepers to provide security to an area (UN Peacekeeping n.d.). Operations with primary or secondary objectives to prevent, halt or reduce the risk of atrocities are also considered within this category.

How is the intervention expected to work?

The disarmament, demobilisation, and reintegration (DDR) of ex-combatants, along with Peace Support Operations (PSOs) and Peacekeeping Operations (PKOs), are expected to improve economic security.

DDR may help ex-combatants reintegrate by providing skills, livelihoods, and psychosocial support, reducing security risks.

PSOs and PKOs may improve security by deploying troops and police, creating safer conditions for economic activity. Reduced violence is expected to encourage market participation, employment, and household stability. This intervention may restore economic security by enabling reintegration, supporting market recovery, and fostering stability in conflict-affected areas. Adverse effects may occur if illegal economic activities, such as smuggling or mining, are an important part of the economy and PKOs limit these activities.

The evidence base

There are eight quantitative studies in this cell. The methods used include propensity score matching and regression analyses (Lively, 2014), matched comparison and regression adjustments (Gilligan, Mvukiyehé, & Samii, 2012), probit regression analysis (Humphreys & Weinstein, 2007), panel data methodologies (Ernst et al., 2014), and high-frequency household survey data with subnational analysis (Bove, 2022). Settings examined include Côte d'Ivoire (Mvukiyehé, 2009), Liberia (Mvukiyehé, 2021; Lively, 2014), Burundi (Gilligan, Mvukiyehé, & Samii, 2012; D'Aoust, 2013), Sierra Leone (Humphreys & Weinstein, 2007), and South Sudan (Bove, 2022). Methodological limitations noted across studies include insufficient sample size power calculations (Gilligan, Mvukiyehé, & Samii, 2012; Mvukiyehé, 2009), high attrition rates (Lively, 2014), and limited intervention descriptions (Ernst et al., 2014).

The cell has three qualitative studies: Adedokun (2019), Sub-Saharan Africa, Channel Research (2011), Sub-Saharan Africa, and Richmond (2011), Middle East & North Africa, Europe & Central Asia, and East Asia & Pacific .

Evidence findings

Many studies report positive findings with respect to economic outcomes such as poverty and employment. However, on average these effects are small, and do not appear to be sustained.

One study finds that, on average, PKOs do not increase the growth rate of GDP but do have a one-off effect increasing the level of GDP per capita by approximately one to two percent. PKOs have a positive impact on GDP per capita in high-income countries, particularly in Europe and Central Asia, and the Middle East and North Africa. However, PKOs tend to have a dampening effect on GDP per capita in low-income countries.

Another study finds that the program resulted in a 20–35 percentage point reduction in poverty incidence among beneficiaries. Income and livelihood outcomes, including access to skilled and unskilled occupations, also significantly improved. Similar findings were reported in another study: poorer individuals reported better employment outcomes. However, DDR participation was not significantly associated with improved economic conditions overall, and wealthier and better-educated individuals struggled with reintegration.

In contrast, another study suggests that ex-combatants' participation in DDR programs significantly increased the likelihood of economic reintegration, including employment

opportunities. Another suggests that households in areas with peacekeeping deployments experienced fewer economic losses and somewhat better recovery in the short-term. However, another study reports that there is no effect or rather a negative effect of PKOs on economic security.

Peace missions facilitate the return of market activities by improving security and reducing the cost of market access, enabling regular product availability and economic exchanges. Hence peacekeepers were found to revitalize local economies. Households in counties with peacekeepers improved purchasing capacity. The likelihood of employment for household heads increases by 7 percentage points in these areas, further bolstering household consumption.

Finally, one study highlights the positive and significant impact of the demobilization program on ex-combatant households in the short run. The large amounts of money introduced into the local economy generated an economic boom, indirectly benefiting civilian households. These positive spillovers may have encouraged the acceptance of ex-combatants in their host communities, which is crucial for peace to sustain. In the long run, however, the positive impact on both beneficiaries and non-beneficiaries vanishes as the money reserves of demobilized ex-combatants run low.

Included studies

Ernst (2014) employs a panel data analysis using a multiplicative binary (dummy) variable approach to assess the economic effectiveness of PKOs. The sample consists of 39 countries where the UN had peacekeeping operations from 1980 to 2010. These countries are categorized into five regions: Europe and Central Asia, Latin America and Caribbean, Asia (South, East) and Pacific, Sub-Saharan Africa, and Middle East and North Africa. This study examines the United Nations peacekeeping operations (PKOs) aimed at creating conditions for lasting peace, facilitating political processes, protecting civilians, and supporting the disarmament, demobilization, and reintegration of former combatants. The study also considers income classifications as defined by the World Bank. The study finds that, on average, PKOs do not increase the growth rate of GDP but do increase the level of GDP per capita by approximately 1.08% to 1.92%.

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The study is rated low confidence.

Gilligan (2012) employs a matched comparison of treated and untreated individuals, using regression adjustments and inverse propensity weighting to control for selection bias and exposure heterogeneity. The study sample includes adult (aged 18 years old and above) male former rebel combatants. Quasi-experimental evidence from Burundi assesses the effect of the demobilization and reintegration (DDR) program in Burundi, following its 1993-2004 civil war, particularly on the ex-combatants' economic well-being. The DDR program in Burundi is under the broader Multi-Country Demobilization and Reintegration Program (MDRP). The paper focuses on the program's "socioeconomic reintegration package" and analyses if the enhancement of economic well-being would entail political integration of these individuals. Respondents were drawn from those who received benefits from three different nongovernmental organizations,

namely Twitezimbere (northern provinces), Planning and Development Collaborative (PADCO, southwest provinces), and Africare (center provinces).

The findings suggest that the program resulted in a 20–35 percentage point reduction in poverty incidence among beneficiaries. Income and livelihood outcomes, including access to skilled and unskilled occupations, also significantly improved.

The study is rated low confidence.

Humphreys (2007) employed a quantitative approach, using probit regression models to assess reintegration outcomes across four dimensions: breaking factional ties, employment, community acceptance, and confidence in democratic processes. The study surveyed 1,043 ex-combatants from five major factions in Sierra Leone's civil war, including both male and female participants as well as those who did and did not participate in DDR programs. The analysis employed a quantitative approach, using probit regression models to assess reintegration outcomes across four dimensions: breaking factional ties, employment, community acceptance, and confidence in democratic processes. The study finds that wealthier and better-educated individuals struggled with reintegration. Meanwhile, poorer individuals reported better employment outcomes. However, DDR participation was not significantly associated with improved economic conditions.

The study is rated low confidence.

Levely (2014) explores the impacts of Disarmament, Demobilization, and Reintegration (DDR) programs on the reintegration of ex-combatants into post-conflict societies. It focuses on economic reintegration, the reduction of violence, and social cohesion as critical dimensions of DDR's effectiveness.

The analysis is based on survey data collected from ex-combatants in Liberia. Statistical techniques such as propensity score matching and regression models were employed to assess the impact of DDR participation on various outcomes, including employment, social acceptance, and propensity for violence. The study accounts for biases related to program participation and variations in conflict exposure.

Participation in DDR programs significantly increased the likelihood of economic reintegration, including employment opportunities, but had mixed effects on reducing violence. Social acceptance was more variable, influenced by factors such as community dynamics and the presence of local reconciliation efforts.

The study is rated low confidence as its attrition rate exceeded 20% and the differential attrition is over 10 percentage points.

Mvukiyehe (2009) evaluates the micro-level impacts of the United Nations Operations in Côte d'Ivoire (UNOCI) on security, economic recovery, and political reintegration after the 2002-2007 civil war.

The analysis used survey data from 1,459 civilians and ex-combatants, conflict event data, and socioeconomic indicators. It employed a mixed-methods approach, including panel methods for time-variant data and cross-sectional methods for static data, alongside hierarchical small-area estimation techniques to address sparsity in community-level observations. Sampling weights and clustering techniques were applied to ensure representativeness and robustness in the estimates.

The findings show that UNOCI deployments had minimal impact on reducing victimization rates, as these had already declined significantly prior to its arrival. However, there was limited evidence that UNOCI-monitored zones deterred renewed hostilities.

Households in areas with peacekeeping deployments experienced fewer economic losses and somewhat better recovery, although these findings are preliminary and require further causal analysis.

UNOCI's electoral sensitization activities were associated with increased confidence in the fairness of upcoming elections. However, its presence did not significantly influence the return of local political leaders or broader political reintegration.

The study is rated low confidence.

Mvukiyehe (2021) assesses the effect of peacekeeping operations on local security, and local economic and social conditions. Post-conflict different types of violence can persist such as criminal gangs, partly as small arms remain available. The presence of peacekeepers can increase local security ('the security bubble hypothesis'), and so the conditions for improved economic and social development, which are seen as pre-requisites for sustained peace. For example, better security will make entrepreneurs more likely to invest. In addition, multidimensional PKOs may provide direct assistance to social and economic development. These interventions may include activities which build community social cohesion.

The authors use exact matching based on the administrative data used for mission planning to identify comparable areas, matching on variables such as local infrastructure and ethnicity. To avoid possible spillover effects, comparison areas were at least 15 km from treatment areas. The dependent variables for local security are (i) victimisation by looting or physical attack, and (ii) in-migration by conflict victims, which should increase if the area is now seen as a safe space. The social-economic environment is measured by a range of indicators including infrastructure, cooperatives, credit groups, and migration status.

There is no effect of PKOs on local security as measured by actual physical victimisation and fear of victimisation, or on in-migration. In fact, local security worsens in areas with a PKO base with higher fear of violence and less in-migration. There are at best modest effects on socio-economic conditions with one well or school being (re)constructed in areas with a PKO base compared to those without, in which there are no such activities.

The authors conclude that peacekeeping on its own is not sufficient to ensure peace. Macro-level incentives, such as discouraging leaders to fight, may be better channels on which to focus attention.

The study reports that there is no effect or rather a negative effect of PKOs on local security which leads to a negative impact on economic security.

Bove (2002) writes that civil wars affect the economic conditions of households by disrupting economic transactions and harming their psychological well-being. To restore basic conditions for local economic recovery in conflict-torn regions, the international community has only a limited number of tools at its disposal. This study asks whether UN peacekeeping is one instrument to mitigate the negative effect of conflict on households' economic well-being. It argues that, by reducing violence and heightening perceptions of safety, UN missions (i) encourage labor provision and economic exchanges, and (ii) instill confidence by reducing the psychological

impact of daily stressors. Combining high-frequency household survey data and information on subnational deployment of UN peacekeepers in South Sudan, the study shows that peacekeepers' military presence improves security (observed and perceived), which in turn revitalizes local economies and households' subjective well-being. These improvements ultimately boost households' consumption, partially countering the negative effect of ongoing civil wars by keeping local communities' economy afloat.

The study first examines households' consumption and then moves to testing the proposed causal mechanisms linking them to peacekeeping presence. The main difference across all models shown is the dependent variable. Because most outcomes are dichotomous, coefficients correspond to marginal effects on linear probabilities. The only exceptions are per capita goods (in units) and traveling time to the closest market (in hours). To assess whether the presence of peacekeepers improves households' well-being, the study analyzes food consumption, irregular consumption, food purchases, and durable (nonfood) goods. The findings indicate that households report higher per capita food consumption—by about 24 units per capita—when peacekeepers operate in their county. Peacekeepers' presence reduces the probability of a household reporting lack of food by almost 10 percentage points and increases food purchases by about 23 units per capita, suggesting an improvement in households' capacity to buy food. Additionally, the likelihood of employment for household heads is higher, increasing by 7 percentage points in areas with peacekeeping presence. Traveling time to local markets is also shorter, reducing by more than 1 hour, as peace missions facilitate the return of market activities by improving security conditions.

The study finds that UNMISS increased consumption of food and durable items for households in counties hosting peacekeepers and improved the security environment, restored economic opportunities, and had a positive impact on households' psychological well-being. The mediated effect of peacekeeping via violence, safety, economic opportunities, and psychological well-being results in about a 2-unit increase in household per capita food consumption, though not statistically significant at conventional levels. Peacekeeping presence leads to a 2-percentage point decrease in the likelihood of reporting irregular food consumption and a 5.5-unit increase in per capita food purchases. Finally, peacekeeping presence is linked to improvements in psychological well-being, with expectations that living conditions will become at least "fairly good" being 14 percentage points higher and life satisfaction almost 5 percentage points higher in counties where peacekeepers are deployed. These findings highlight the mechanisms through which UN peacekeeping produces its economic-enhancing effects.

The study is rated low confidence.

D'Aoust (2013) assesses the impact of the disarmament, demobilization, and reintegration (DDR) program implemented in post-conflict Burundi. Burundi is recovering from a civil war that lasted more than a decade. The armed conflict ended in 2009 with the voluntary demobilization of the last Hutu rebel group, the Palipehutu-FNL. In exchange for laying down their arms, ex-combatants received reinsertion allowances equivalent to an 18-month salary. Four years earlier, another Hutu rebel group, the CNDD-FDD, had benefited from the same allocations, along with in-kind payments between the two peace agreements.

First, a theoretical model was developed to predict the impact of demobilization cash transfers on beneficiary and non-beneficiary households. Then, a household panel dataset was used, collected in 2005, 2006, and 2010 in three rural provinces heavily affected by the conflict. The objective was to assess the short- and long-run impacts of the demobilization program on ex-

rebel economic outcomes and to measure the externalities that may have affected civilian households.

The empirical analysis highlights the positive and significant impact of the demobilization program on ex-combatant households in the short run. The large amounts of money introduced into the local economy generated an economic boom, indirectly benefiting civilian households. These positive spillovers may have favored the acceptance of ex-combatants in their host communities, which is crucial for peace to sustain. In the long run, however, the positive impact on both beneficiaries and non-beneficiaries vanishes as the money reserves of demobilized ex-combatants run low. The study supports reinsertion programs as a short-run strategy to reduce the risk of relapse into conflict, but the reintegration phase fails to help ex-combatants engage in productive activities, raising concerns about long-term peace sustainability.

The study is rated low confidence.

Confidence assessment

Overall, the cell is rated low confidence. (Unsure due to the findings)

Other outcomes in the study/cell:

- Human security/ Physical security
- Human security/ Food security and nutrition & Health security
- Violence and atrocity prevention/Social norms regarding violence and atrocities
- Community and state governance/Government performance
- Social cohesion/ Feelings of trust and acceptance of diversity
- Community and state governance/ Access to justice, rights and public services
- Community and state governance/ Civic participation