

## **Effect of infrastructure investment on nature and scale of violence and atrocities**

Infrastructure investment initiatives, particularly smaller, localized projects, have no overall effect on reducing violence.

Geographic scope: Middle East and North Africa, Global

Effect: No effect ( $g=0$ )

Confidence in study findings: Low (3 studies with 9 effect sizes)

### **Short Summary**

This cell examines the Commander's Emergency Response Program (CERP), a U.S. military-led initiative delivering rapid, small-scale aid in conflict zones, mainly Afghanistan and Iraq. Projects include road construction, water supply, electricity infrastructure, and community-driven initiatives, following a "hearts and minds" counterinsurgency approach aimed at improving living conditions to reduce insurgent activity. Evidence indicates that overall, CERP projects show no effect on reducing violence. Small projects with localized implementation and flexible "cash on hand" disbursement had some limited success in Iraq, while larger projects in Afghanistan showed no significant effect or were associated with increased violence. The cell is rated as low confidence due to the limited number of studies.

### **Long summary**

#### *The intervention*

The intervention focuses on small-scale infrastructure projects under CERP. Projects include community-level roads, water supply systems, electricity infrastructure, and other initiatives targeting urgent needs in conflict-affected areas. Funding decisions were decentralized, allowing local commanders to prioritize projects based on immediate security concerns rather than long-term development objectives.

#### *How the intervention is expected to work*

CERP operates under a counterinsurgency logic, assuming that improving basic living conditions fosters support for the government and reduces alignment with insurgents. Decentralized funding allows rapid allocation to high-conflict areas, providing immediate benefits to communities. However, large-scale projects are less flexible, often delayed by administrative processes, and may inadvertently increase tensions or violence by drawing insurgent attention.

#### *The evidence base*

This cell includes three impact evaluations in Afghanistan and Iraq. These analyzed a U.S. military initiative.

One of the reviews discusses the effects of different interventions (which include infrastructure investment) on mitigating or preventing armed violence in developing and middle-income countries. The other is concerned with development aid, including infrastructure aid, and its effects on violence.

#### *Evidence findings*

Infrastructure investment projects, such as those under CERP, generally show no effect on reducing violence overall. Small-scale projects implemented by localized units had some positive impact in Iraq, particularly when using flexible “cash on hand” disbursement. However, larger projects in Afghanistan showed no significant effect and, in some cases, were associated with increased violence.

#### *The review evidence*

Reviews indicate that infrastructure interventions generally have no significant effect on violence, and in some cases, large-scale public works may exacerbate insurgent attacks or casualties.

#### *The impact evaluation evidence*

There are 3 impact evaluations. Three study summaries are thus provided here:

**Adams (2015)** explores the effectiveness of the Commander’s Emergency Response Program (CERP) in Afghanistan, a U.S. military initiative aimed at promoting local development. It provides the commander the ability to mould the combat environment. The study utilizes the CERP project spending and SIGACTs (Significant Activities) data documenting violence. The dataset covers 32 months (2011-2013), which include 398 Afghan districts – 4,148 CERP projects categorized as small (<USD50,000) or large (>USD50,000). District-level fixed-effects regression which accounts for population size, prior violence trends, and seasonal controls is applied to evaluate how spending correlates with changes in violence. The findings show that small CERP projects are significantly associated with reductions in violence, particularly after a lag of three months. In contrast, large projects correlate with increases in violence. Projects disbursed with “cash on hand” methods (bulk CERP) were also found to be more effective in reducing violence compared to those requiring extensive administrative approval. The study is rated medium as it is non-experimental and due to its partial description of the evaluation question.

**Berman (2011 & 2013)** investigates the effectiveness of reconstruction spending, particularly through the Commander’s Emergency Response Program (CERP), in reducing violence in Iraq. The authors analyze whether improved service provision can mitigate insurgent violence and enhance community stability. The study employs a panel data analysis approach, utilizing a combination of violence data against Coalition and Iraqi forces, reconstruction spending data, and community characteristics. The sample consists of district-level observations. The study analyzes 1,040 district/half-year observations, covering 104 districts over a period from January 2004 through December 2008. The study finds that every additional dollar per capita of CERP spending is associated with a reduction of 1.59 violent incidents per 100,000 population per half year, particularly after January 2007 when operational changes improved understanding of community needs. The average violence rate in Iraq during the study period was 58.6 incidents per 100,000 per half year. Smaller projects, implemented by units with better local knowledge, were found to be about five times more effective in reducing violence compared to larger projects. The study is rated medium as it is non-experimental and due to its partial description of the evaluation question.

**Child (2014)** The Commander’s Emergency Response Program (CERP) was implemented by the U.S. military in Afghanistan from 2005 to 2009 to fund reconstruction projects. These projects aimed to reduce violence by fostering economic development and improving cooperation with local communities as part of a broader counterinsurgency (COIN) strategy under the “hearts and minds” credo. The study analyzed the impact of CERP spending on violence across 227 districts in Afghanistan over a 57-month period. The analysis found no statistically significant effect of CERP spending on reducing violence. Instead, a weak positive relationship was observed in the OLS estimates, indicating that higher spending might be associated with increased violence, possibly reflecting project targeting in volatile regions. Distinguishing between small and large

projects did not yield statistically significant estimates, but large projects showed a potential for adverse effects. The confidence in the findings was rated as low due to insufficient information on the evaluation questions.

*Confidence Assessment*

Overall low: The confidence for this cell is low due to the limited number of studies

*Link to review summaries*

Cramer (2016)

Zurcher (2017)

All studies may be accessed via the EGM.

**Other outcomes in the study:**

None