

Underspending on irrigation in Albania

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From the World Bank's BOOST data, we have identified significant underspending in the agriculture sector as a concern across the globe, particularly in irrigation. In a series of briefs, we explore why irrigation spending fell short of budgeted allocations in five countries and how this affected outcomes. Here we examine the situation in **Albania** over eight years, from 2010 to 2017, and review information on nonfinancial performance where available.

Extent and nature of deviations of the irrigation budget

The data suggest Albania's irrigation budget was underspent in all years over the period 2010-2017.¹

Table 1: Irrigation budget & spending from 2010 to 2017, (in LEK million, unless otherwise specified)²

Year/level	Approved budget	Revised budget	Executed	Deviation from budget	
				vs. approved	vs. revised
2010	2,761.6	1,759.8	1,439.7	-47.9%	-18.2%
Central	2,720.3	1,719.2	1,412.0	-48.1%	-17.9%
Local	41.4	40.7	27.6	-33.2%	-32.0%
2011	3,792.3	2,708.1	2,490.3	-34.3%	-8.0%
Central	3,760.6	2,513.8	2,329.8	-38.0%	-7.3%
Local	31.6	194.3	160.5	+407.2%	-17.4%
2012	2,167.0	2,039.4	1,907.9	-12.0%	-6.5%
Central	2,131.6	1,816.1	1,701.5	-20.2%	-6.3%
Local	35.4	223.4	206.3	+482.6%	-7.6%
2013	1,770.4	1,605.3	1,349.7	-23.8%	-15.9%
Central	1,729.4	1,451.6	1,223.9	-29.2%	-15.7%
Local	41.0	153.7	125.8	+207.2%	-18.1%
2014	2,137.0	1,590.7	1,351.2	-36.8%	-15.1%
Central	2,098.8	1,496.5	1,285.7	-38.7%	-14.1%
Local	38.2	94.2	65.5	+71.5%	-30.4%
2015	2,953.6	2,702.4	2,641.1	-10.6%	-2.3%
Central	2,922.0	2,667.7	2,624.6	-10.2%	-1.6%
Local	31.6	34.7	16.5	-47.8%	-52.5%
2016	7,086.6	7,986.2	6,039.1	-14.8%	-24.4%
Central	3,864.6	4,447.8	4,505.1	+16.6%	+1.3%
Local	3,222.1	3,538.4	1,534.0	-52.4%	-56.6%
2017	6,013.1	6,805.6	5,241.6	-12.8%	-23.0%
Central	2,376.8	2,769.9	2,721.9	+14.5%	-1.7%
Local	3,636.3	4,035.7	2,519.7	-30.7%	-37.6%

Source: World Bank's BOOST database

¹ We look at data for the program "04240 Management of drainage and irrigation's infrastructure" under the subfunction for agriculture in economic affairs.

² 2016 and 2017 figures presented in Table 1 differ from those used in the BOOST Data Lab, as we consider all items classified as econ3 "604 Current domestic transfers" under admin2 "001 Central Government Fund" and admin3 "99 (T) Local Government Units" to be transfers from central to local government and exclude them.

Recent allocation changes: From 2015 to 2016, Albania’s irrigation budget increased significantly in size as the local government budget rose sharply from LEK 32 million to LEK 3 *billion* (Table 1). This is likely a result of the territorial and administrative reform which began in 2015. According to the [United Nations Development Program](#), 22 functions, including irrigation and drainage infrastructure management, were transferred to the local government in early 2016. The changes included a new financing mechanism of “specific transfers” that added to the total pool of unconditional transfers to local governments.

Comparing data from different sources: Budget Monitoring Reports from the [Ministry of Finance](#) (MOF) and the [Ministry of Agriculture](#) (MOA) also offer data on the irrigation budget. For years 2011-2015, approved amounts (excluding the local government budget financed by local own revenues) in BOOST match the monitoring report data. For 2016 and 2017, the central government data align. Executed amounts in BOOST match the Treasury data in all years except for 2013, when they deviated by 1%, but are slightly different from the data submitted by the MOA to the MOF.³ Differences in the ministry and Treasury data are small for the irrigation program, at 0 to 5%, and are mainly caused by foreign financing in the capital budget, according to the monitoring reports.

Contrary to global standards on measuring budget credibility, the Albanian government’s own reports compare actual expenditure to the *revised* budget. This tends to underestimate the magnitude of budget deviations as the supplementary budgets are generally reduced compared to the originally approved budgets. Such was the case for Albania’s irrigation budget over the period 2010-2015 (Table 1). Even against the revised budget, however, spending on irrigation was under budget in each of those years. MOA’s monitoring reports show that in 2013 and 2014 (when central spending on irrigation fell below the revised budget by more than 10%, and for which data are available online), about 80% of the underspending was located in the products “rehabilitation and improvement of irrigation canal network” and “complete rehabilitation of reservoir dams.”

Where is the underspending? While full details by specific category are not available on the approved budget through BOOST, we do see that expenditure on “tangible fixed assets” for irrigation – which accounts for roughly 70% of the irrigation budget and includes lands, roads, dikes and water works – has been underspent heavily. On average, this category was underspent by 40% over the 8 years. In 2016 and 2017, when the central budget was overspent, deviations were smaller.

Table 2: Spending on “Tangible fixed assets expenses” of irrigation over 2010-2017, BOOST data

Year	Budget for tangible fixed assets:			As share of total irrigation budget:		
	approved (LEK mil)	executed (LEK mil)	deviation	approved	executed	difference (p.p.)
2010	1,966.4	552.9	-71.9%	71.2%	38.4%	-32.8
2011	3,017.6	1,715.4	-43.2%	79.6%	68.9%	-10.7
2012	1,291.2	1,096.5	-15.1%	59.6%	57.5%	-2.1
2013	891.0	325.1	-63.5%	50.3%	24.1%	-26.2
2014	1,241.0	436.6	-64.8%	58.1%	32.3%	-25.8
2015	2,016.3	1,387.7	-31.2%	68.3%	52.5%	-15.7
2016	6,037.4	5,008.9	-17.0%	85.2%	82.9%	-2.3
2017	4,484.0	3,776.4	-15.8%	74.6%	72.0%	-2.5
Average	--	--	-40.3%	68.4%	53.6%	-14.8

³ The BOOST [country page](#) does note that “the data were obtained from the National Treasury System of Albania.”

Linking budget execution and nonfinancial target performance

For the irrigation sector as a whole

Priorities set: The MOA's [Sectoral Strategy](#) for Rural and Agricultural Development 2014-2020 clearly establishes irrigation and drainage as priority items, noting that the sector is one of the “main areas of ministry policy” and has “a direct impact on the sustainable growth of agricultural production in the country.” Over this period, the ministry aims to rehabilitate, improve and modernize irrigation and drainage infrastructure. Sustainable management of irrigation and drainage systems – which involves support for decentralization – is also put forth as one of its main objectives. Strategy-monitoring indicators for the ministry include “agricultural land with rehabilitated and improved irrigation infrastructure, ha.” Goals for 2017 and 2020 are set at 250,000 ha and 290,000 ha, respectively, compared to 220,000 ha in 2012:

Exhibit 1¹: Strategy-monitoring indicators

Treguesi	2011	2012	Objektivi 2017	Objektivi 2020
Sipërfaqja totale potencialisht e ujitshme, ha	360 000	360 000	360 000	360 000
Tokë bujqësore me infrastrukturë ujitëse të rehabilituar dhe përmirësuar, ha	210 000	220 000	250 000	290 000
Përqindja e sipërfaqes së tokës bujqësore me infrastrukturë të rehabilituar dhe përmirësuar krahasuar me totalin (360 000 ha), %	58,3	61	69,4	80
Sipërfaqja e mbetur për t'u ujtur (infrastrukturë e rehabilituar ujitjeje), ha	150 000	140 000	110 000	70 000

¹Screenshot of Table A1 of the 2014-2020 Sectoral Strategy. Note: Data and targets shown for the indicators translate to (1) “potentially irrigable total area,” (2) “agricultural land with rehabilitated and improved irrigation infrastructure,” (3) “percentage of farmland with rehabilitated and improved infrastructure compared to total,” and (4) “residual area to be irrigated.”

The medium-term budget program, *Programi Buxhetor Afatmesëm* (PBA), which presents key parameters and priorities for the development of the annual budget over a 3-year period, incorporates sectoral and cross-sectoral strategies to develop goals and objectives for each line ministry's budget programs. Looking at the 2015-2017 PBA, the first program since the strategy report, we find 14 products under the program “drainage and irrigation infrastructure management.” PBAs present expenditures and performance targets for each of these products, over 4 years beginning with Year 0. Unfortunately, figures for Year 0 appear to still be estimated or forecasted values and are not useful for the purpose of our analysis.

Limited or inconsistent information on nonfinancial performance: MOA's monitoring reports provide minimal information on nonfinancial target achievement, and only for a limited number of products. According to the 2015 monitoring report:

- About 14,000 ha of agricultural land was irrigated or rehabilitated, in relation to 8,300 ha planned for 2015 and 5,000 ha achieved in 2014.
- 15 dams were partially rehabilitated.
- 11 dams were completely rehabilitated under the Water Resources and Irrigation Project.
- About 808 km of irrigation canals were cleared, in relation to 320 km achieved in 2014.
- About 430 km of drainage canals were cleared, affecting roughly 50,000 ha.
- About 2.2 km of embankments were rehabilitated or reconstructed.
- Low voltage electrical system of Porto Romano was reconstructed.

A target is provided only for the first indicator, so it is not possible to compare the other results to a measure of expected performance. When compared to the revised budget, the product relating to rehabilitated and improved irrigation was executed at 100%. Some other products were executed at a lower rate – for example, reconstruction of embankments showed a rate of 76%. However, we are unable to look at their rate of nonfinancial achievement, as targets are not available in the monitoring report. In fact, in the 2016 and 2017 reports, annual targets are not mentioned at all.

We could compare the indicators above from the MOA to estimates provided in the PBAs, but data do not seem to align or be comparable between the two documents. For example, in the 2015-2017 PBA, the 2015 value for irrigation infrastructure rehabilitation is provided as 9,576 ha – compared to the target of 8,300 ha in the monitoring report.

Data presented in consecutive PBAs tend to vary as well. Goals set for 2017 differ across the rolling plans, even for the products that seem to remain unchanged on the surface at least. The hectare target for drainage infrastructure rehabilitation, for example, was reduced from 2,500 to 0, and then increased to 500 and 3,000 over the 3 PBAs (Table 3). While revisions may serve as a reasonable response to unexpected changes or cost reductions, they are frequent and unexplained. This, in addition to lack of data on targets in monitoring reports, makes it difficult to link nonfinancial performance to budget credibility – let alone assess them separately.

Table 3. Irrigation and drainage program indicators and targets for 2017, from PBAs

Project	Product and unit	PBA 2015-17	PBA 2016-18	PBA 2017-19	PBA 2018-20
Out-of-project costs	Drainage network / main drainage network maintained (km)*	430	430	260	217
	Irrigation canal network / main irrigation canal network maintained (km)*	320	174	250	130
	Drainage service with hydraulic mechanical lift (millions of m3 of water)	800	800	600	600
	Technical inspections of irrigation, drainage and flood protection infrastructure (no. inspections)	3	3	3	3
Drainage infrastructure rehabilitation	Rehabilitation of drainage channel networks (ha)	2,500	0	500	3,000
Irrigation infrastructure rehabilitation	Rehabilitated and improved irrigation canal networks (ha)	12,700	17,400	14,631	17,000
Improving flood protection	New / reconstructed embankments (km)**	3	2	5	3
	Rehabilitated embankments (km)	2	2	9	3
Technical improvement of hydraulics	Reconstructed and retrofitted hydropower (no. facilities)	2	1	1	1

Note: The table does not show products that are not included in the recent PBAs, e.g., embankments routinely maintained.

*MOA was responsible for the operation and maintenance of both first (i.e., main) and second canals until the end of 2015, but only for first canals following the territorial and administrative reform. The change in terminology and fluctuations in targets may reflect this reduced role.

** Shows the sum for 2 products (new embankments built and reconstructed embankments) from the 2015-2017 and 2016-2018 PBAs.

The individual products contribute to the broader program and sector objectives. The 2017 monitoring report from MOA observes that “the irrigation capacity at the end of 2017 amounted to about 225,000 ha compared to 120,000 ha in 2014.” Despite the significant increase, this is still 25,000 ha short of the Sector Strategy target shown in Exhibit 1. But the baseline figure in the MOA report for 2014 (120,000 ha) is *less* than what is provided in the Sector Strategy for 2011 and 2012 (more than 200,000 ha), which may again indicate incomparability of budget documents.

The role of local spending: It is not clear if and how local administrative units contribute to the program objectives. According to the BOOST data, central expenditure on irrigation and drainage was overspent relative to the approved budget in 2017; but the overall expenditure, including local, was underspent by over 10%. The role of local spending thus needs to be clarified to link financial and nonfinancial data.

For a select project: World Bank’s Water Resources and Irrigation Project

Over the assessed period, there are more than 800 project codes for irrigation in BOOST. In addition, roughly 30% of the irrigation budget is coded as “unknown.” One donor project stands out, however: Water Resources and Irrigation Project (WRIP), funded by the World Bank, represents 5 to 36% of total budget and 100% of donor budget for the irrigation sector since 2012. The project was underspent in most years – but the size of deviation gradually reduced, and it was *overspent* in 2017:

Table 5. Water Resources and Irrigation Project over 2012-2017, from BOOST

Year	Amount			As share of irrigation		
	approved (LEK mil)	executed (LEK mil)	deviation	Approved	executed	difference (p.p.)
2012	100.0	0.0	-100.0%	4.6%	0.0%	- 4.6
2013	500.0	87.8	-82.4%	28.2%	6.5%	-21.7
2014	769.0	136.4	-82.3%	36.0%	10.1%	-25.9
2015	1,000.0	660.2	-34.0%	33.9%	25.0%	-8.9
2016	739.0	547.9	-25.9%	10.4%	9.1%	-1.4
2017	1,030.4	1,330.1	+29.1%	17.1%	25.4%	+8.2

This may be due to the significant progress in disbursements made in recent years. According to the [World Bank implementation reports](#), cumulative rate of annual disbursements in 2017 jumped from 35% in March to 53% October – compared to the much more muted increase in 2016 from 23% in April to 28% in November – and then reached 74% in March 2018. Another report on restructuring notes that the Government of Albania requested an extension of the closing date in 2018, as the process of institutional reform was delaying the implementation of the project’s remaining activities – giving us a sense of how territorial and administrative reform has affected irrigation projects.

Results indicators used by the World Bank are not very useful for our assessed period. As of October 2017, no indicators but the number of dams rehabilitated had shown any progress, likely because they required construction work to start providing services. The narratives offered are useful, however, especially when combined with the MOA reports:

- The project was signed in December 2012 and declared effective in May 2013; one month later, elections led to a change in Government and reorganization in line ministries.

- This explains the deviation of -100% for 2012 (Table 5) and the lack of information in the 2013 monitoring report – which only notes that the implementation work has not yet started, and that the product “fully rehabilitated reservoir dams” was not realized because it relates mainly to foreign financing.
- In 2014, the World Bank noted that some procurement packages have been delayed “due to exogenous factors” with the dam rehabilitation works – including the verification of winning bidders’ documentation and high bids received for the supervision contract. In early 2015, the Bank observed that with issues and delays in tenders continuing to impede the actual works, disbursements would “remain low until late FY15.” Civil works and disbursements eventually picked up, and 11 dams were rehabilitated by the end of the year.
 - The 2014 monitoring report notes that the “cause of failure to execute the planned investment” was that the supervisor failed to issue commencement orders, while the 2015 report boasts that 11 dams have been fully rehabilitated under the WRIP.
- After dam rehabilitation, WRIP turned its focus to irrigation rehabilitation and modernization covering 20,000 ha. In 2016, the World Bank highlighted that progress was made in the contract design, bid preparation and tendering – but as contracts were not signed, disbursements slowed down. In the following March, the Bank noted that “major progress has recently been achieved with the contracting” and in October, projected that contracts for 5 priority schemes would be finalized before the end of the year.
 - According to the monitoring reports, contracts for 5 main irrigation schemes were in place and the implementation had started by the end of 2016. The work was completed over the following year and the 2017 monitoring report highlights that the irrigated area with rehabilitated infrastructure has increased by about 20,000 ha.

In sum, WRIP illustrates how implementation challenges, particularly procurement issues, can lead to delays in disbursement and fluctuations in budget credibility over the years. This can in turn widen or shrink the gap in nonfinancial targets, often having a significant impact on cumulative achievement.

Conclusion: A need for greater transparency

Despite some confusion regarding the territorial and administrative reform and foreign financing, data from both BOOST and monitoring reports suggest that the irrigation budget in Albania tends to be underspent. The extent of underspending is especially large for the capital portion of this budget, including spending on rehabilitation and improvement of water infrastructure.

Unfortunately, connecting this challenge in budget credibility to nonfinancial performance is made difficult by the lack of data or its quality. We find a targeted value for only one product in the 2015 monitoring report. PBAs do not provide any actual values, and even their targeted or estimated values do not seem to align with monitoring reports. This may be due to revisions in financial estimates and/or nonfinancial targets over the budget year, but we are not able to confirm this.

Project-level data are also largely missing, except for WRIP, which is funded by the World Bank and highlighted in the MOA monitoring reports during almost all years assessed. Information available in the monitoring reports and the World Bank implementation reports points to various challenges in

execution that may be related to underspending and failure to meet nonfinancial targets. Of course, such detailed information should be made available for all major investments, and not just the WRIP.

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Documents consulted

- BOOST database: <https://bit.ly/316qGTd>
- Monitoring reports from Ministry of Finance: <https://bit.ly/2okhjS4>
- Monitoring reports from Ministry of Agriculture: <https://bit.ly/2p4YPpi>
- Sectoral strategy for rural and agricultural development 2014-2020: <https://bit.ly/2oiZymw>
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- World Bank documents on the Water Resources and Irrigation Project: <https://bit.ly/2noRBMu>