



Investing in rural people

Disbursement performance of the International Fund for Agricultural Development (IFAD)

An in-depth analysis of drivers and trends

by

Tim Balint

Daniel Higgins

Paola Mallia

Silvana Scalzo

Paul Winters

Research and Impact Assessment Division, IFAD

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A stylized illustration of several green wheat stalks with long awns, positioned in the bottom left corner of the page.

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Table of contents

Acknowledgements	2
Abstract	5
Introduction	6
Setting the scene: drivers of disbursement performance	8
Previous research findings.....	8
Identification of potential drivers	10
Study methodology	13
Data sample	13
Measuring disbursement performance	14
Analytical models.....	17
Trends in IFAD's disbursement performance from 1995 to 2015	20
Disbursement readiness of IFAD-supported projects	20
Disbursement effectiveness of IFAD-supported projects.....	26
Explaining IFAD's disbursement performance	39
Overview of results.....	39
Country-related variables	44
Project-related variables	47
IFAD-related variables.....	49
Country programme manager-related variables	52
Concluding remarks	53
Annex 1: Explanatory factors of IFAD's disbursement performance	56
References	59

Abstract

This study describes and explains the disbursement performance of IFAD-supported development projects over the past 20 years, representing the most extensive study of this area conducted for any international financial institution (IFI). Using econometric models, the study assesses how characteristics of the recipient country, the development project itself, or IFAD affect the amount and timeliness of disbursements. It thereby provides important lessons on how IFIs such as IFAD can better monitor and manage an important part of their development effectiveness.

Based on data from 577 projects in 111 countries, the study finds that IFAD-supported projects take, on average, more than 17 months from approval to first disbursement and tend to be generally slow in disbursing funds during project implementation. This performance can be explained by a combination of factors. First, country-level factors such as fragility, income status, natural disasters and concurrent elections matter. Second, the size, type and sequencing of project financing have a significant effect, indicating inter alia that larger projects disburse more quickly. Third, and most importantly, IFAD's own performance matters. The results show that IFAD's country offices are benefiting disbursement performance of projects and that experienced staff have a significantly positive effect, as long as turnover and workload are managed well.

Introduction

With the Addis Ababa Agenda for Action calling for unprecedented investments in achieving the Sustainable Development Goals, international financial institutions (IFIs) play an increasingly important role in providing financial assistance to developing countries. Unlike budget support which is non-earmarked and provided as a one-off payment, IFI-financed operations are typically tied to the implementation of a particular programme or project for which funding is granted in tranches of disbursements. Accordingly, a quick project start-up and regular and timely disbursements to recipient countries are key to the success of IFI-financed operations and to reaching the intended development impact (Gohou and Soumaré, 2009; Sunjka and Jacob, 2013; Mishra, 2016). Although the observed disbursement performance is to a large extent a reflection of the recipient's ability to implement the project, IFIs have a shared responsibility by supervising project implementation and releasing funds to the recipient when necessary and deemed appropriate.

In an effort to promote more timely and accelerated disbursements to its projects, the International Fund for Agricultural Development (IFAD) decided to rigorously analyse trends and drivers of its disbursements and to recommend actions to stimulate improvement for the future. As a specialized United Nations agency and IFI that provides loans and grants to governments of developing countries, IFAD currently manages a portfolio of around US\$6.8 billion of financing to 230 rural and smallholder agricultural development projects in over 90 countries.

In adding to the small number of existing published studies of IFI disbursement performance, this piece of research has significant importance for IFAD, but can also provide important lessons for other IFIs. Internally, it represents the first systematic investigation into the drivers of IFAD's disbursement performance and aims to provide evidence-based insights for future improvement. Externally, the study represents the most comprehensive – and possibly the most methodologically robust – analysis of disbursement performance of an IFI to date, and can serve as a potential best-practice approach for other IFIs wanting to assess and improve their disbursement performance.

Formally, the investigation will aim to answer the following research questions:

1. What are the trends in IFAD's disbursement performance over the past 20 years?
2. What are the most significant factors that influence IFAD's disbursement performance?
3. How can IFAD (and other IFIs, if relevant) improve disbursement performance in the future?

As the only IFI that is exclusively focused on investing in rural people, IFAD uses a variety of financing instruments ranging from grants to concessional and un-concessional loans. Within its investment portfolio, countries are categorized into five regional groupings: Asia and the

Pacific (APR); East and Southern Africa (ESA); Latin America and the Caribbean (LAC); Near East, North Africa and Europe (NEN); and West and Central Africa (WCA). Projects are collaboratively designed by IFAD and the recipient government, but are implemented by a project management unit comprised of recipient government staff, with IFAD adopting a supervisory role throughout project implementation.

In this study disbursement performance will be considered from both a “disbursement readiness” and a “disbursement effectiveness” point of view. While the readiness perspective represents the ability to get a project up and running after formal approval, the effectiveness perspective looks at the pace and amount of disbursements throughout the project lifetime up until closure. These two dimensions are of the utmost importance for development effectiveness and also reflect the most common indicators used in the results measurement frameworks of IFIs, such as the Asian Development Bank, the African Development Bank, the Inter-American Development Bank and the World Bank (see Ahsan and Gunawan, 2010; Gohou and Soumaré, 2009; Nkamleu, Tourino and Edwin, 2011; Álvarez, Bueso-Merriam and Stucchi, 2012; Kersting and Kilby, 2015).

The remainder of this paper is organized as follows: the next section sets the scene for the empirical analysis by providing an overview of the existing studies conducted on drivers of IFI disbursement performance and complements this with qualitative findings from interviews and IFAD’s internal documents. The section on study methodology details the data sample and the methodological approach for measuring and explaining IFAD’s disbursement performance, while the following two sections present the actual results based on descriptive statistics and results of the econometric analysis. The paper closes by setting out the consequent conclusions and recommendations for action.

Setting the scene: drivers of disbursement performance

In order to properly investigate an IFI's disbursement performance, a clear understanding is required of the potential drivers and issues that play a part during project life. While the number of studies that have been published on this topic is very limited, some insights are provided by the few existing studies on the disbursement performance of other IFIs. These are presented in the next section, followed by the rationale for the inclusion of potential explanatory variables and a more detailed description of the IFAD project cycle.

Previous research findings

There are a very large number of factors that could potentially influence an IFI's disbursement performance. So far, only a handful of studies have used quantitative analysis to systematically determine which factors have a significant effect on IFIs' disbursement performance (see Table 1).¹

Relevant studies include Gohou and Soumaré (2009) and Nkamleu, Tourino and Edwin (2011), which analysed the disbursement performance of the African Development Bank (AfDB). They both investigate the influence of a number of factors on the disbursement readiness of AfDB-financed projects, using the time from approval to first disbursement as the dependent variable in an econometric regression analysis. They find that larger project budgets and higher country gross domestic product (GDP) have a significantly positive effect on reducing first disbursement delays, with grant-based funding also found to have significantly less delay than loans. They also find that countries in Southern Africa and projects that are planned for a long duration tend to have more first disbursement issues than others.

Assessing effects across the entire project life, Álvarez, Bueso-Merriam and Stucchi (2012) analyse the disbursement performance of projects financed by the Inter-American Development Bank (IDB). Using historic disbursement data to create benchmark values for a given number of months after project approval, the study measures performance for each project by calculating the deviation of actual disbursements from the respective benchmark values. Echoing the findings of the AfDB studies, they find higher project budgets to be associated with favourable performance, but also find that long project design times can serve as an indication for subsequent disbursement issues. The study also shows that disbursement performance increases if the team leader of an IDB-financed project is based in the recipient

1. Other studies that look at drivers of disbursement performance through qualitative studies are not considered here. An example of such a study is that of Ahsan and Gunawan (2010), which investigates disbursement performance influence at the Asian Development Bank by reviewing project completion reports. It notes that time overrun and budget underrun are common outcomes of their projects and identify procurement and recruitment delays as common causes of the former, and local currency devaluation, and unrealistic projections for procurement costs and contingency funds as the main causes of the latter.

country, but only if he or she is well qualified and skilled for the job at hand. This is more likely the case, and hence positive for disbursement performance, since the IDB changed respective organizational policies in 2009. Finally, the study shows that higher workload and turnover of team leaders have a negative effect on disbursement performance, while age and experience of team leaders are not found to have an effect.

Interestingly, no comprehensive study on drivers and trends of the World Bank's disbursement performance is available to date. Albeit limited in their inclusion of potential factors, only Kersting and Kilby (2015) look at the World Bank's disbursement performance as a clearly identifiable dependent variable.² Using econometric regression analysis and assessing disbursement speed by the number of months taken to disburse 25 per cent of the project budget, the study shows that disbursement speed can be influenced by national elections. In particular, disbursements are faster for governments that are aligned with the United States on the United Nations Security Council during an election run-up, and significantly slower during the run-up for governments not aligned with the United States.

Table 1: Overview of existing quantitative studies assessing IFI disbursement performance drivers

Organization and study	Focus and sample	Results
African Development Bank (AfDB) Gohou and Soumaré (2009)	<ul style="list-style-type: none"> • Focus: Factors that influence time between approval and first disbursement. • Sample: 2,195 AfDB-financed projects approved between 1967 and 2008. 	<ul style="list-style-type: none"> • Positive effect: Higher GDP per capita; higher project budget; project being financed by a grant compared to a loan; project being related to communication sector. • Negative effect: Project in the south of the continent. • No effect: Project sector; project in north, west or east of the continent.
African Development Bank (AfDB) Nkamleu, Tourino and Edwin (2011)	<ul style="list-style-type: none"> • Focus: Causes of delay between approval and first disbursement. • Sample: 525 AfDB-financed projects approved between 1990 and 2007 in the agricultural and agro-industry sector. 	<ul style="list-style-type: none"> • Positive effect: Higher approved project budget; more recent approval date; higher number of components. • Negative effect: Longer planned duration. • No significant effect: Goal is linked to agricultural and productivity growth; share of budget covered by AfDB; located in an AfDB-only eligible country.
Inter-American Development Bank (IDB) Álvarez, Bueso-Merriam and Stucchi (2012)	<ul style="list-style-type: none"> • Focus: Factors that drive disbursement performance from approval up until end of project. • Sample: 1,049 IDB projects approved between 1996 and 2011. 	<ul style="list-style-type: none"> • Positive effect: Higher approved budget; team leader located in country (after policy change in 2009). • Negative effect: Team leader located in country (before policy change in 2009); higher length of preparation time; change in team leader during project life; number of projects managed by team leader. • No effect: Age and experience of team leader.
World Bank Kersting and Kilby (2015)	<ul style="list-style-type: none"> • Focus: Effects of country having an upcoming election and being aligned with the United States on the United Nations Security Council, against the number of months taken to disburse 25 per cent of project budget. • Sample: 5,115 projects implemented between 1984 and 2012. 	<ul style="list-style-type: none"> • Positive effect (on accelerating disbursements): When a country that is aligned with the United States on the United Nations Security Council has an upcoming election. • Limitation: Effect does not hold for non-competitive elections where there is little risk to the incumbent.

2. Studies that assess the World Bank's disbursement performance among other indicators include Dollar and Levin (2005), Denizer, Kaufmann and Kraay (2013) and Legovini, Di Maro and Piza (2015) on factors that determine project success, and Kilby (2011) on factors that determine delays between project inception and approval.

Identification of potential drivers

The studies presented above show that drivers of an IFI's disbursement performance can range from country- and project-level variables to organization- and individual-level variables. Recognizing the limited set of existing studies, and in an effort to identify as many as possible potential drivers of an IFI's disbursement performance, qualitative research needed to be undertaken prior to starting the actual analysis. This included a review of IFAD's internal documents (e.g. summary portfolio reviews, supervision mission reports, project ratings) and semi-structured interviews with relevant IFAD staff. The explanatory variables that were eventually included in the model can be categorized into four areas: (i) country-related; (ii) project-related; (iii) IFAD-related; and (iv) country programme manager (CPM)-related. Each of these sets of variables is discussed below.

Country-related variables

There are a number of logical hypotheses relating to economic, political, social and environmental country-level factors that may shape project disbursement performance. Economically, the income level of a country could reflect the capacity of the country to mobilize its resources to properly implement a project and to ensure spending goes to plan, and/or could also function to increase or decrease the desire and motivation for development support. The importance of the rural sector to the economy and the amount of support the sector receives overall could also be significant determinants, particularly in terms of absorption capacity. In addition, as shown by Ahsan and Gunawan (2010) and also commonly cited in IFAD documents, exchange rates between the local currency and the loan denomination currency play an important role, with a devalued national currency decreasing the likelihood (and need) to fully disburse the approved project budget. Finally, a country's fiscal space, defined as a government's ability to "borrow without losing market access or facing sustainability challenges" (OECD, 2016: p. 4,) was identified as a relevant factor. Using government revenue and current account balance as proxies, a country's fiscal space determines the ability to reliably and efficiently request and transfer borrowed funds to the intended project and to provide the necessary counterpart funding from its own national budget.

There are also a number of political factors to consider. First, elections have the propensity to disrupt disbursement with diversion of state machinery to election matters, or to expedite them as incumbent leaders attempt to win favour in election build-ups, as highlighted by Kersting and Kilby (2015) for the World Bank. State fragility is another potential influence, and due to its high correlation with a number of indicators also serves as a proxy for governance factors such as corruption and rule of law. The causal direction is, however, not clearly established. Fragile states might be ill-equipped to manage a project because of unstable and inadequate institutions, or might appear better equipped to disburse quickly without lengthy checks and balances for decisions about procurement and purchase of goods and services.

The main social and environmental factors relate to large-scale disruptive incidents. Socially, epidemics and conflict should clearly be considered, and environmentally, natural disasters, particularly those such as droughts and floods that have a major impact on agricultural activities. Also, here the causal direction is not unambiguous, as natural disasters might as well accelerate disbursements as such events might motivate reallocation of funds to attend emergencies.

Project-related variables

IFAD-supported projects are agreed upon with, and implemented by, national governments that often delegate the authority to implement the project to a specific project management unit (PMU). Given IFAD's focus on rural areas in poor regions, these units are often located in remote areas prone to many difficulties, including coordination and communication problems and issues with attracting and retaining qualified staff. During supervision missions, IFAD assesses project performance against several criteria, including project implementation progress, fiduciary aspects and sustainability, and provides recommendations for the way forward in supervision mission reports. Building on findings in these reports, it can be hypothesized that disbursements are closely linked to effective procurement processes, responsive service providers and sound financial management. In terms of project activities, a key message from staff interviews was also that providing funds to infrastructure and local financial institutions might have a positive effect on disbursements compared to "soft" investments in training and capacity-building. Finally, interviews also highlighted the hypothesis that low disbursements are correlated with weak PMU capacity, difficulties in recruiting and retaining PMU staff, high turnover of project directors, and lack of strategic orientation coupled with poor monitoring and evaluation systems.

Previous research has also shown that the type and amount of project financing and activities can have an effect on IFI's disbursement performance, something which was echoed in IFAD project documents. In terms of financing, clearly as an indicator of its scale, the approved budget of a project is important to consider, as highlighted by a number of the previous studies. Of additional relevance is the type of financing provided, with interest-free grants most likely differing in how they are used compared to loans due to the different incentive structures of recipients (see Gohou and Soumaré, 2009). Also of interest is whether providing start-up funds can expedite implementation progress and whether cofinancing has an effect on disbursements. Another group of factors that may drive disbursement performance of IFAD financing is related to cofinancing. Depending on the amount cofinanced and the arrangements made with the national or international cofinancier, there is a hypothesis that cofinancing adds to complications in terms of managing and sequencing project activities.

IFAD-related variables

While country- and project-level variables can be considered mostly external to IFAD, there is a set of variables that relate to internal factors, referred to as "IFAD-related variables". Along the project cycle, there are different entry points where IFAD can influence disbursement performance. At the project design stage, IFAD can ensure that a project design is of high quality and that the project is ready to be implemented immediately and satisfactorily after Board approval. Important elements of this quality are, for example: (i) sound analysis of project context and geographic coverage; (ii) sufficient time and effort spent on adequate project components and theory of change, including risk assessment; and (iii) close consultation with stakeholders during the design process. There is, hence, the hypothesis that project design quality correlates with disbursement performance.

Another area in which IFAD can influence disbursement performance, and in particular project readiness, is during the negotiation of financing agreements and the start-up phase. In the financing agreement, IFAD can determine conditions for first withdrawals and make provisions for start-up funds, especially as the use of the latter are supposed to

increase the likelihood of timely first and subsequent disbursements. Finally, direct (rather than outsourced) supervision and country presence (rather than managing projects from headquarters) could also be correlated with disbursement performance and will be tested in this study.

Country programme manager-related variables

Álvarez et al. (2012) have shown that characteristics of project managers are also important to consider as potential explanatory factors. In IFAD's case, this role is equivalent to that of a country programme manager (CPM), which is an IFAD staff member responsible for the design, supervision and overall engagement with country programmes and projects. Given the key role of the CPM in supervising the project implementation and being involved in the processing of disbursement requests, there are a number of their characteristics which could plausibly shape disbursement performance. Hence, indicators of CPM workload, experience, and whether they are stationed in the project country are relevant. In addition, CPM gender, the number of CPM changes during project life, and whether the acting CPM was also involved in project design are important, with fewer changes and the designing CPM being in charge expected to lead to more favourable performance.

Study methodology

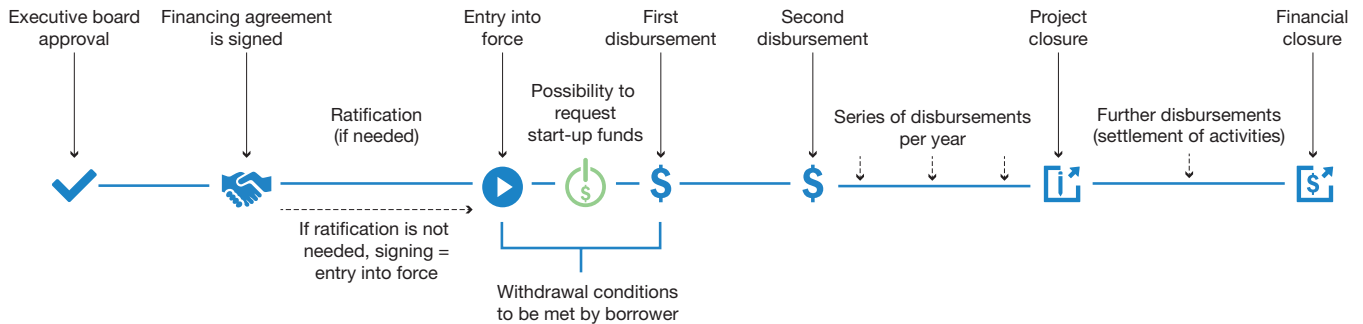
To answer the research questions, relevant data on IFAD disbursements over the past 20 years plus the potential influencing factors were collated. While data on disbursements were easily accessible, not all relevant factors could be measured and included in the multi-model econometric analysis. For example, factors related to procurement processes or staff in the programme management unit could not be considered owing to lack of data. Moreover, not enough historic data were available for all potential factors (this was the case for project design quality ratings). Other factors such as project quality ratings during implementation had to be excluded due to issues of multicollinearity, which makes the isolation of individual effects highly problematic. In cases such as the latter, a judgement was made as to the main variable of interest, and its correlated variable was hence omitted. Annex 1 provides an overview of all variables for which data were available for this study, including references to data sources and reasons of excluding potentially relevant variables.

The following subsections explain in more detail the data sample, the indicators of disbursement performance used, and the analytical models employed.

Data sample

This study analyses the disbursement performance of the 577 IFAD-supported projects that were approved between 1995 and 2014. Investment projects that were approved before 1995 are excluded from this study because data on potential explanatory factors for IFAD's disbursement performance are not available for the 1980s and early 1990s due to the lack of corporate databases at that time. Disbursements were considered for the selected project sample up until 31 December 2015 to provide the most up-to-date data. They were sourced from an internal data source and carefully adjusted, taking into account the specificities of start-up advances and consistent retroactive financing in Botswana, Mexico and Morocco, as well as returns and refunds. The term "disbursements" refers to all payments against IFAD-managed funding sources of a particular investment project, which are: (i) IFAD financing (i.e. funds derived from IFAD's regular replenishment sources, reflows and investment income, as well as from sovereign borrowing); (ii) the Spanish Trust Fund; (iii) the Belgian Survival Fund/ Belgian Fund for Food Security; and (iv) supplementary funding directly managed by IFAD, such as funds from the Global Agriculture and Food Security Program.

Figure 1: Steps between approval and financial closure for IFAD-financed investment projects



Measuring disbursement performance

Once a project is approved by IFAD, there are many steps in the project cycle at which potential disbursement issues might occur, starting with the project approval by IFAD’s Executive Board and ending with the financial closure of the project. Figure 1 gives an overview of this process. While the phase from Executive Board approval to first and second disbursement is relevant to a project’s disbursement readiness, the disbursement effectiveness dimension looks at all disbursements until financial closure.

Disbursement readiness

From the number of potential entry points for delay in IFAD’s pre-first disbursement process – agreement signing, possible ratification, meeting of agreement conditions – and from the focus of other existing studies, it is clear that this period plays a key part in overall disbursement performance. As well as these delays being in themselves an issue, projects experiencing initial delays are often associated with not disbursing their full approved budget by project closure (Gohou and Soumaré, 2009).

As shown in Figure 1, projects can directly enter into force once the financing agreement is signed, but not if the signed financing agreement needs to be ratified by other national authorities such as parliament. This relatively speedy process of declaring a project effective was introduced through the “Revisions to the General Conditions for Agricultural Development Financing”, enacted in April 2009. Before this change, the recipient had to fulfil a number of additional conditions before a project could become effective. Most of these conditions now apply to the phase between entry into force and first disbursement. While the latter is often an advance for covering planned expenditures, a second disbursement can only occur if the recipient has provided satisfactory evidence of having incurred eligible expenditures relative to about 20-30 per cent of the initial advance. This is why the second, and not necessarily the first, disbursement is often considered as the final proof of started project activities.

In sum, there are three key stages in the disbursement readiness of a project: it being declared effective/entering into force, it receiving its first disbursement, and it receiving its second disbursement. In recognition that different factors may play a role in delays in different stages

of disbursement readiness, this analysis will therefore assess influences on the following disbursement readiness indicators:

- Number of days between approval and effectiveness/entry into force
- Number of days between approval and first disbursement
- Number of days between approval and second disbursement
- Number of days between first and second disbursement

Disbursement effectiveness

For each year after effectiveness of the financing agreement, the PMU is required to complete an Annual Work Plan and Budget (AWPB), which contains planned expected expenditures for the coming year. This is then checked and endorsed by the CPM, who is an IFAD staff member tasked with overseeing the implementation of all projects in the assigned country. For each disbursement that is requested against the AWPB, the PMU is required to complete an application which must be approved by IFAD, and must detail exactly how the previous tranche of funding was spent. Throughout the project lifetime, disbursements are made up until the amount that was agreed in the financing agreement is reached, but can also fall short of this amount owing to various reasons that will be investigated in this study.

Many IFIs, including IFAD, measure this disbursement effectiveness as “disbursement ratio”, which is defined as the ratio between actual disbursed amounts and the disbursable amount in a particular reporting period. While suitable at the corporate level, disbursement ratios are not comparable across projects as the denominator “disbursable amount” correlates heavily with the age of a project.³ A sounder measurement of disbursement effectiveness at the project level is the disbursement rate, which compares cumulative actual disbursements against the original approved financing amount.

As part of the trend analysis, benchmark disbursement curves were created to assess the relative disbursement effectiveness of IFAD projects. These signify the expected disbursement rate for a given stage of project life, based on historic disbursement data. This type of benchmark was used, as opposed to a frontier-based approach, because it fits best with the study’s emphasis on disbursement effectiveness, as opposed to efficiency. One overall and five region-specific benchmark curves were calculated based on project disbursement rates at a given project stage, with the project stage calculated as the number of months since project approval as a percent of the planned project length. In using econometric methods to generate the curves, the method mirrors that used by Álvarez et al. (2012) to create the IDB historic disbursement curve, except that the project stage was used instead of the absolute number of months as it was deemed to better facilitate comparison of disbursement rates across projects of differing planned lengths. An ordinary least squares (OLS) regression analysis was then employed to assess the typical shape that disbursement schedules take, whereby the raw, squared, cubed and quartic values of the project stage were regressed against disbursement rates, with a positive coefficient on the raw value and a negative coefficient on the squared value.

3. At the beginning of a project’s lifetime, the disbursable amount of a project is high and then goes down with every disbursement made. Consequently, a mature project typically shows a very high disbursement ratio, whereas younger projects show relatively low disbursement ratios, even if the younger project had disbursed much more – and, in essence, had a better disbursement performance – than the older one in the same period. The fact that the disbursable amount accounts for reductions of originally approved loan/grant amounts makes it even more difficult to compare disbursement ratios across projects.

The equation with the highest r-squared was equation 1, with a positive coefficient on the raw value, a negative coefficient on the squared value, and a positive coefficient on the cubed value.

$$Y_i = \beta_1 X_i + \beta_2 X_i^2 + \beta_3 X_i^3 + u_i \quad (1)$$

Where Y_i = Disbursement rate for project i ; X_i = Project stage for project i ; u = Error term for project i

A key consideration in this process was dealing with projects that had received top-up funding, whereby funds are added to the overall project budget after project implementation. Such incidents could cause a distortion in the curve (as the disbursement rate would suddenly fall after the top-up was received due to the jump in the denominator), and so topped-up projects and financing amounts were only included if one of the following conditions were fulfilled: (i) the top-up or original financing instrument was cancelled (this applied to three projects in the sample); (ii) the top-up was approved prior to any first disbursement (11 projects); or (iii) the top-up was approved no later than one year after the first disbursement (9 projects). In all of these cases, top-up financing is – in principle – almost the same as any other financing received and could, therefore, be considered as if received as part of the original financing. Four projects that received top-up financing after their original completion date were also included, but only with the original financing up until the point the top-up approval kicked in. Thirty-four projects with top-up approvals at any other point during their project life were excluded from this study. This happened not only because of the “jumpy” nature of respective disbursement rates, but also in recognition of the fact that such top-ups are likely to be associated with significant changes in disbursement planning and behaviour of key actors.

As slight time overruns are quite common in IFAD’s portfolio, the benchmark curve was calculated for all projects that have completed within, or are currently below, 118 per cent of their planned project time.⁴ This is in line with the IFAD9 Results Measurement Framework, which established a time overrun of not more than 18 per cent as an acceptable performance. After this cut-off, the benchmark curve’s shape is extrapolated. Projects with time overruns above 18 per cent are plotted in the graph, but are excluded from the calculation of the benchmark curve, thereby smoothing out the effect of outliers in it and reflecting better than average performance.⁵

Two indicators were used to measure disbursement effectiveness, aiming to capture performance in terms of timing and amount of funding provided across project life:

- Disbursement rate at any point in time across project stages
- Disbursement rate at project closure

While the disbursement rate at project closure is straightforward and comparable across projects, the disbursement rate at any (other) point in time needs to be interpreted in the context of other projects at similar points in time. As aforementioned, due to differences in planned time lengths, this study compares disbursement rates at a relative point in time (e.g. 50 per cent of planned time passed), as opposed to absolute values of time passed since project approval. It was decided that measures of disbursement rates would be taken for every 5 per cent of planned project length. Because of the common frequency of disbursements

4. Time overrun is calculated as time elapsed between the planned completion date against the planned duration. In cases where the last disbursement occurred after the planned completion date, the last disbursement date was considered as numerator instead of the planned completion date.

5. Projects with high time overruns tend to be associated with lower disbursement rates.

(approximately once every 2.5 per cent of project life, on average), and the frequency of the data points for the other variables used in the analysis, this discrete interval was chosen over a continuous measure, or other interval lengths, as it was deemed to strike the best balance between keeping the number of observations within a manageable level and ensuring sufficient variation across observations in the variables used.

Analytical models

For the analysis of disbursement performance drivers different econometric models were employed according to the nature of the disbursement effectiveness indicator that was being assessed, with one model being used to assess the disbursement readiness indicators and two others being used to assess disbursement across project life and total amount disbursed at project closure.

Disbursement readiness

The analysis of the factors influencing the elapsed time between approval, effectiveness (entry into force), first disbursement and second disbursement employed a dynamic survival analysis model. Commonly used for the analysis of factors affecting the length of time between two events, the method involves breaking the data down into set time periods and assessing the influence of each explanatory variable on the likelihood of the second event occurring in that period. This was chosen as opposed to running a cross-sectional analysis using the total number of days delay as the dependent variable for two main reasons. Firstly, survival analysis allows for the consideration of time-specific values of time-variant indicators, rather than using averaged or summed values for the whole project period. And secondly, it has an advantage over both cross-sectional and other dynamic models in that it allows for the consideration of projects that have not yet been disbursed. Using survival analysis, these projects are classified as right censored and their time periods that are captured before the end of the data window can still be included in the analysis (see Miller Jr., 2011).

In explaining the model, focal windows were considered as transitions from one state (e.g. approval) to another (e.g. first disbursement), and the time spent to complete the transition termed as the *duration*. The survival model therefore assesses the effect of explanatory variable values on the probability of the transition occurring in a given period. The beginning of the duration is the moment when a project starts being at risk of experiencing the event of interest. An important consideration for this model is the length of the time periods considered. The decision of employing a discrete model of three monthly periods in this case is based upon striking a balance between the frequency that the time-variant variables change, the common amount of time taken for the transition of interest, and keeping the number of observations to a manageable level. As most of the time-variant data is annual, but the delays between the transitions can range from a small number of months to a couple of years, it was decided that discrete three-month periods would be used. Using these discrete periods, we therefore record the dependent variable as a series of binary outcomes denoting whether or not the event occurred at each observation point.

The probability of a project disbursing within a given period, given the fact it has not disbursed up until that point, is known as the *hazard function* of the occurrence of the event. More formally, letting T denote the random variable indicating the disbursement event, the hazard function in period t_j is stated as:⁶

$$\lambda_j = \Pr[T = t_j | T \geq t_j] \quad \text{with } t_j = 1, 2, 3, \dots \quad (2)$$

From the hazard function, we can recursively obtain the *survivor function*, formally defined as:

$$S(t) = \Pr[T \geq t] = \prod_{j|t, j \leq t} (1 - \lambda_j) \quad (3)$$

These two last-defined formulas express two different, but complementary concepts: while the hazard function collects all the *instantaneous* probabilities of disbursing at each time period, the survivor function is the probability that the event of interest has not yet occurred by duration t .

In this case, the survivor function of a project after six months from approval (i.e. $\Pr[T \geq t_2]$) would be the probability of not disbursing in the first three months (i.e. $t = 1$) multiplied by the probability of not disbursing in the following three months (i.e. $t = 2$) conditional on the fact that the project has not had a disbursement just before completing six months. Thus, the survivor function is a decreasing step function with steps every three months (which is one period in our case).

Since our main interest is to determine the internal and external factors that impact the hazard rate, we model the probability of the occurrence of the event (i.e. first disbursement, effectiveness or second disbursement) as expressed in the following specification:

$$\Pr(T = t_j | T \geq t_j, X_{it}, \text{Country}_{jt}, \text{CPM}_{kit}) = \beta_0 + \beta_1 X_{it} + \beta_2 \text{Country}_{jt} + \beta_3 \text{CPM}_{kit} + \beta_4 \text{Time} + \varepsilon_{ikt} \quad (4)$$

Where $t = 1, 2, 3, \dots$ represents periods under analysis; the explanatory variables (X_{it} , Country_{jt} , CPM_{kit}) are the same as in the previous model, but measured for each time period t . Moreover, we model time by including the time variable, **Time**, in a polynomial form, specifically using linear, squared and cube terms. The dependent variable takes value zero in every period if the observation is right censored or if one project has not disbursed in that period and value 1 only when it disburses. Given that the dependent variable is a probability, a probit model was used.

Disbursement effectiveness

In order to assess the factors influencing the rate of disbursement across project life, a dynamic random-effects generalized least squares (GLS) model was employed. This estimation model functions by conducting an OLS estimation on a transformed model of the data,⁷ and was chosen as it is especially effective at controlling for potential serial correlation within the data, which is a particular risk when conducting an analysis on panel data such as this. A random-effects model was used over fixed effects for two reasons: (i) it is not expected that any omitted characteristics of projects would be correlated with the independent variables; and (ii) it allows for the inclusion of important time-invariant independent variables, such as whether the country is a small state. The final estimation involves taking the average effect of the explanatory variables on the dependent variable for all projects and all time periods according to the following specification:

6. The notation is borrowed from Cameron and Trivedi (2005).

7. For a detailed explanation, see Kurata and Kariya (2004).

$$\left(\left(\frac{\text{Cumulative amount disbursed}_t}{\text{Approved budget}} \right) \times 100 \right)_{it} = \beta X_{it} + \mu_i + v_{it} \quad (5)$$

Where I = project *i*; t = time period *t* (values occurring every 5 per cent of project life); X = the set of explanatory variables to be included in the model; μ = the time-invariant project-specific unobserved effect; V = the time-variance project-specific unobserved effect.

Based on the fact that the overall amount disbursed is a cross-sectional variable, a static OLS regression analysis was conducted. This involved regressing a vector of explanatory variables against the total amount disbursed as a percentage of the approved budget. Although other cross-sectional analytical models are possible, OLS regression was selected, as it is suggested to be the most appropriate when using a proportional dependent variable and a large number of explanatory variables (see Long, 1997). The formal specification for the model is outlined as:

$$\left(\left(\frac{\text{Total amount disbursed}}{\text{Approved budget}} \right) \times 100 \right)_i = \beta X_i + e_i \quad (6)$$

Where I = project *i*; X = the set of explanatory variables to be included in the model; e = the unobserved variation in the dependent variable.

For this analysis, a number of the time-variant explanatory variables had to be converted to cross-sectional form. The process of doing so varied by the specific variable, for instance, an average was taken for variables, such as the number of years of CPM experience in a given project year or yearly measures of state fragility, while for others it was more logical to take a sum of the values, such as the number of elections held in a given year or the annual count of natural disasters.

Trends in IFAD's disbursement performance from 1995 to 2015

This section highlights the main trends in IFAD's disbursement performance for all projects that were approved between 1995 and 2014, including all disbursements until 31 December 2015. The first part of this section presents descriptive graphs and tables on the disbursement readiness of IFAD-supported projects covering the periods between project approval to effectiveness/entry into force and first and second disbursement. The second part is devoted to disbursement effectiveness and starts with an illustration of gross disbursement rates for completed and ongoing projects by region and country. Based on these findings, the respective deviations from the overall and the region-specific disbursement curves are presented to give an overview of disbursement effectiveness across the portfolio.

Disbursement readiness of IFAD-supported projects

Following the specifications in the section on study methodology, disbursement readiness was measured for all investment projects with first disbursements between 1995 and 2015.⁸ Data are presented from 1999 onwards to avoid the bias of excluding projects that had a first disbursement between 1995 and 1998, but were not part of this study due to an approval date prior to 1995.

Overall disbursement readiness

To start with, Figure 2 shows IFAD's disbursement readiness against the approval to first disbursement indicators.⁹ The results show that disbursement readiness was the most favourable in the late 1990s, and then deteriorated by almost 25 per cent, to reach 21 months, in the mid-2000s. From then onwards it fell slowly, but continuously, to reach 17.6 months by the end of 2015. Overall, however, data collected for this study confirm the fact that performance has barely improved.

To further analyse the trend displayed in Figure 2, the indicator was broken down in two main phases – average time from approval to effectiveness/entry into force (phase 1), and average time from effectiveness to first disbursement (phase 2). These two phases are shown in Figure 3.

8. From the 577 investment projects that were approved between 1995 and 2014, 15 projects were excluded because of systematic prefinancing (Botswana, Mexico and Morocco portfolio), and eight did not have a first disbursement within 2015. The two projects in Palestine were also excluded.

9. For this purpose, three-year rolling averages are used to smooth out outlier effects, as the number of first disbursements per year is relatively small.

Figure 2: Average time from approval to first disbursement in months

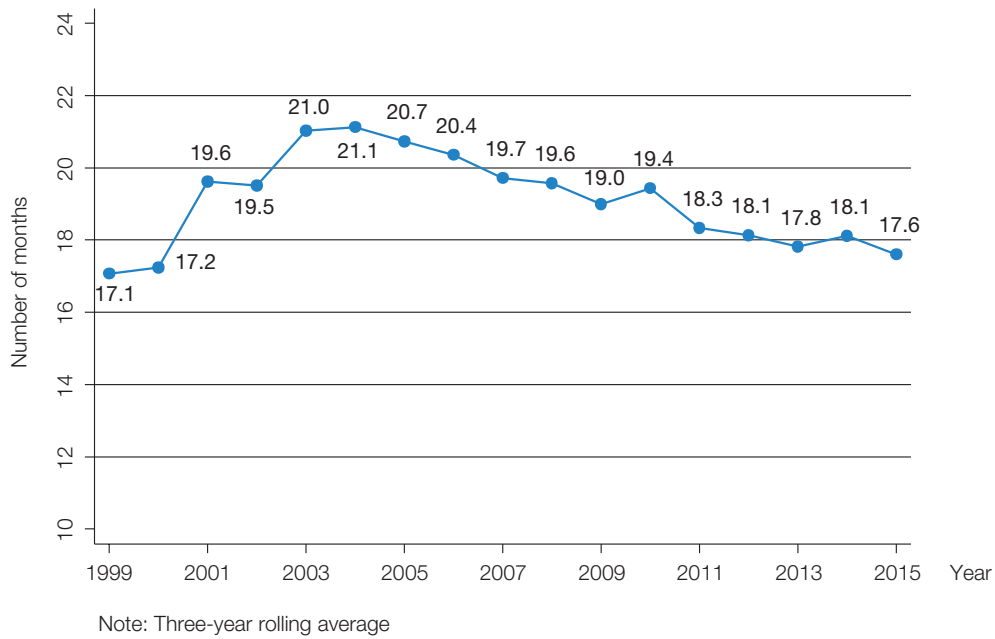
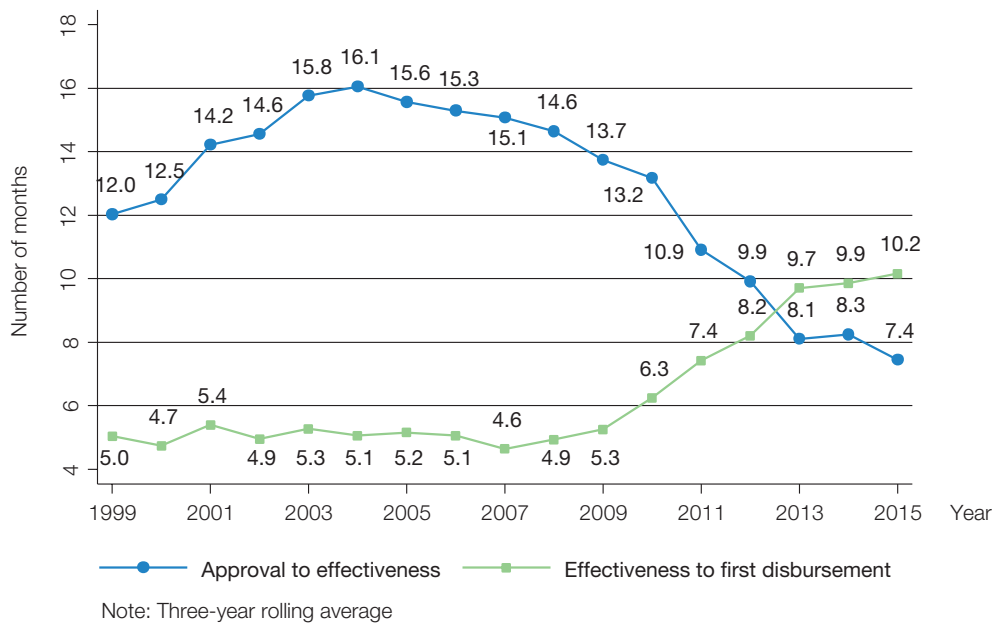


Figure 3: Average time from approval to effectiveness and effectiveness to first disbursement in months



One can see that the time required for approval to effectiveness increased from the late 1990s and peaked in the mid-2000s, whereas the time required for effectiveness to first disbursement stayed almost constant. Interestingly, this trend reversed after the mid-2000s and gained further momentum after 2009 (see Figure 3). The time taken for a project to enter into force fell from 13.2 months to 7.4 months, while, concurrently, almost twice as much time as before is needed for a first disbursement to materialize after entry into force. This observation is of particular relevance, as it is commonly assumed that IFAD has more control over the first disbursement than over the entry into force of a project. An immediate hypothesis would be that the observed change is related to the aforementioned 2009 policy change which abolished effectiveness conditions.

Figure 4 displays the time trend for the gap between approval and first disbursement – beyond looking at simple averages – using “kernel density graphs” with which the probability density function of a random variable can be estimated. Based on the historic data for the below approval periods, the graphs predict the probability of the event in question materializing for a given time period. The graphic on top shows that the overall distribution of the time it takes projects to disburse after approval has changed little over time, with the dotted line for approvals after 2009 only situated slightly further to the left of the graph, an indicator of shorter times to the event, than the blue curve. The real difference becomes evident in the other two graphs. The one on the left shows that the probability for projects entering into force quickly has increased dramatically, evidenced by the large peak for the dotted line within the 0-5 month period, way above the blue line, followed by lower probabilities than the blue line for all time spans thereafter. While there was a high chance in the past that projects would take more than 20 months to become effective (see shape of blue line), this is now a rare occurrence. The opposite is true for the graph on the right. In the past, it was very likely that projects had their first disbursement within five, at the latest ten, months after effectiveness (see blue line peaking on the left). Nowadays, one needs to assume that a time lag of 10 to 20 months is quite likely (see stretched-out dotted line). In sum, the graphs suggest that the 2009 policy revision had quite an impact on both phases.

The last phase that is of relevance for measuring disbursement readiness is the time from first to second disbursement, as the latter serves as an ultimate proof that the project has started to actually spend the money it received. Figure 5 shows that the average time stands at 6.9 months, more or less at the same time as in the early 1990s and after a short period of peaks above 9 months in the mid-2000s.

Figure 4: Kernel density for disbursement readiness prior and after revision of the General Conditions in 2009

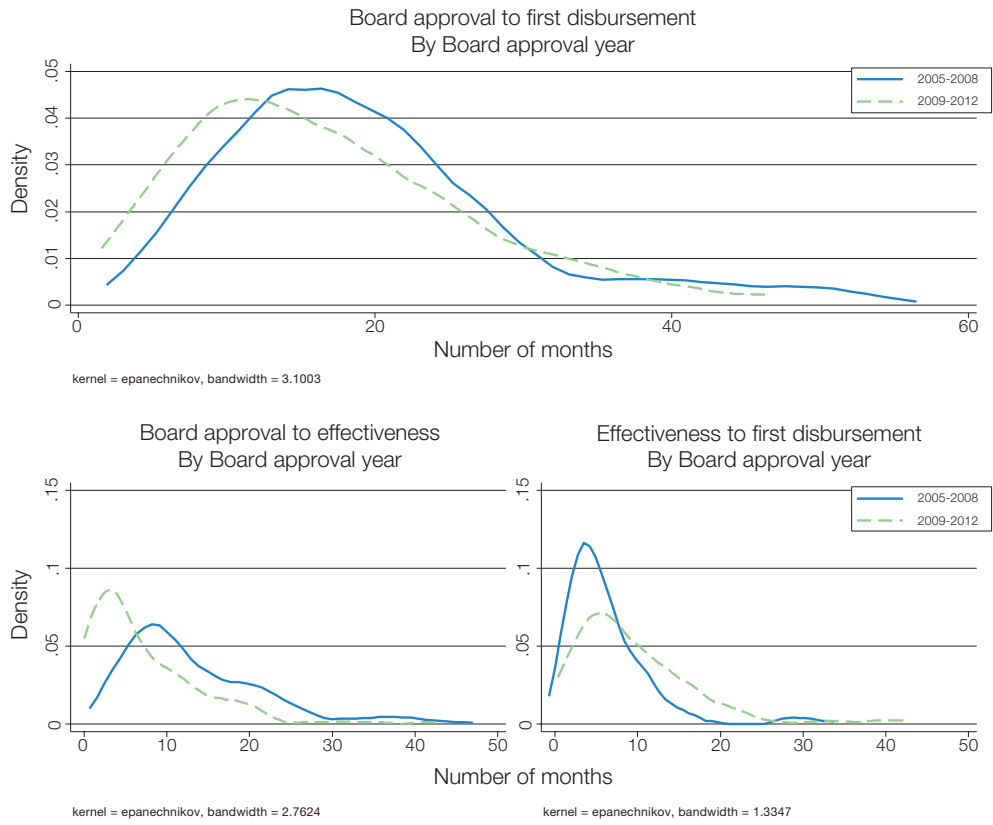


Figure 5: Average time from first disbursement to second disbursement in months

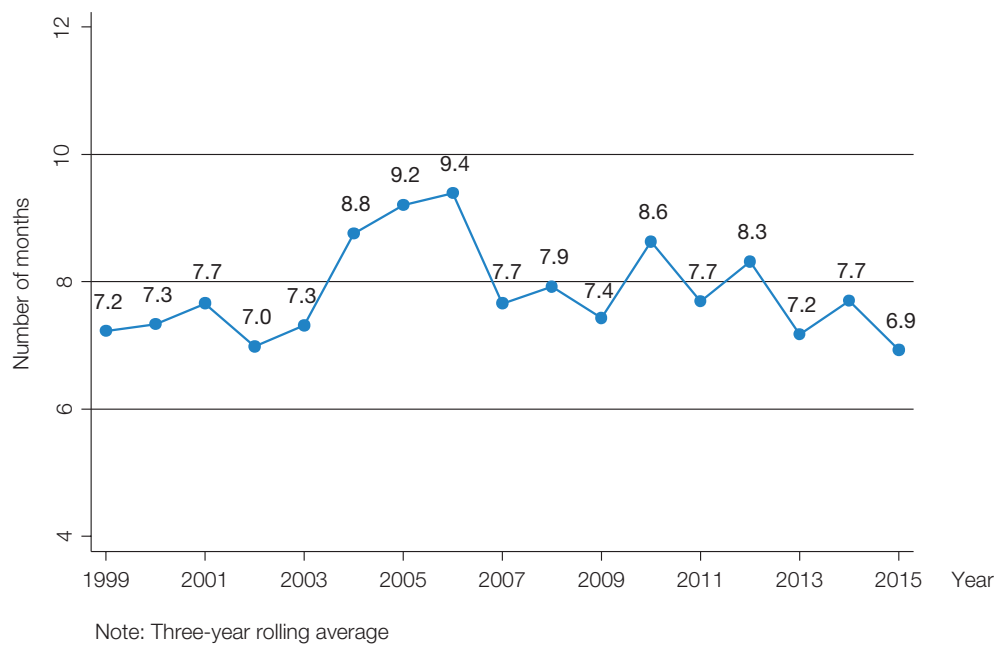


Table 2: Overall disbursement readiness by phase and replenishment cycle (months)

	IFAD5 (2001-2003)	IFAD6 (2004-2006)	IFAD7 (2007-2009)	IFAD8 (2010-2012)	IFAD9 (2013-2015)
Board approval to effectiveness	15.8	15.3	13.7	9.9	7.4
Effectiveness to first disbursement	5.3	5.1	5.3	8.2	10.2
Subtotal (Board approval to first disbursement)	21.0	20.4	19.0	18.1	17.6
First to second disbursement	7.3	9.4	7.4	8.3	6.9
Grant total (Board approval to second disbursement)	28.3	29.8	26.4	26.4	24.5

In sum, one can conclude that IFAD's overall disbursement readiness has slightly improved over the last three-year replenishment cycles (see Table 2). The average time from approval to first disbursement fell from 21 months to 17.6 months, and the average time from approval to second disbursement from 28.3 months to 24.5 months. What is striking, however, is that the time it takes to complete different phases has changed quite dramatically over the years. Projects that disbursed for the first time in the IFAD replenishment period (2013-2015) only needed 7.4 months to be declared effective, which is half the time needed by projects disbursing for the first time during IFAD5 (2001-2003). At the same time, projects in IFAD9 needed twice as much time to get a first disbursement after entry into force than projects in IFAD6. This is again, most likely, an effect of the 2009 revision of the General Conditions after which effectiveness conditions were abolished, but many more first disbursement conditions added to the financing agreements.

Disbursement readiness at the regional level

The historic trends at the regional level confirm that the average time from approval to first disbursement improved across the board, with the recent exception of the NEN region (see Table 3). The WCA region's performance has greatly improved from a peak of more than 24 months in IFAD6 to 16 months in IFAD9. Also projects in the APR and ESA regions managed to reduce the time lag by more than 30 per cent, from around 19 months in IFAD5 to 14-15 months in IFAD9. The LAC region still has the highest lag between approval and first disbursement, but also here disbursement readiness has steadily improved since IFAD6.

Table 3: Average time from approval to first disbursement by region and replenishment cycle (months)

	IFAD5 (2001-2003)	IFAD6 (2004-2006)	IFAD7 (2007-2009)	IFAD8 (2010-2012)	IFAD9 (2013-2015)
APR	19.6	16.1	17.7	15.6	14.8
ESA	19.3	17.6	15.5	16.6	14.2
LAC	26.0	31.3	28.3	26.5	23.3
NEN	17.1	20.1	19.7	15.4	21.1
WCA	22.7	24.2	17.4	18.3	15.9

To better understand differences between regions and within regions in different phases of the processes, another set of kernel density graphs were developed, as shown in Figure 6. Based on the historic data collected for this study, the graphs display the probability density function for each phase and, thus, give an idea about the distribution of disbursement readiness performance across IFAD's regions.

The first graphic on the top left-hand side shows the probability density function for the time between approval and first disbursement. The fact that the curves for the APR and ESA regions peak on the left implies that there is a higher probability for these regions to have projects that disburse quickly, within less than 10 months after approval. The flat, more or less evenly distributed curve for LAC countries shows that disbursement lags are common in this region, with an increased probability of having projects needing more than 40 months to disburse. The kernel density graph for the time between Board approval and effectiveness on the top right indicates that it is very likely for APR-based projects to be declared effective very quickly, whereas the lag in effectiveness is a particular issue in the LAC region, partly due to prevailing ratification requirements. While probabilities are more or less evenly distributed across regions for the effectiveness to first disbursement phase, there is a notable difference among regions for the time between first and second disbursement.

Figure 6: Kernel density graphs to assess performance in disbursement readiness across regions

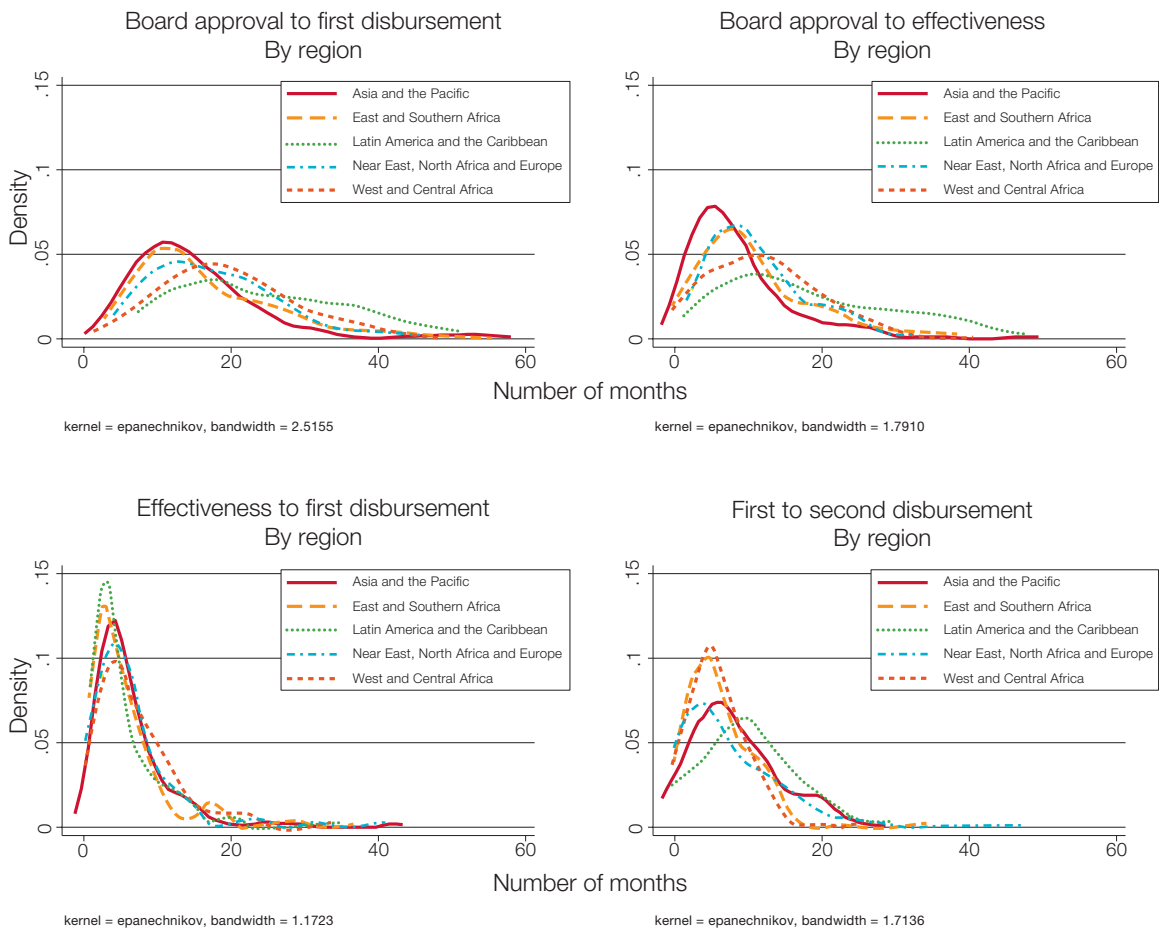


Table 4: Regional disbursement readiness at the end of 2015 (months)

	APR	ESA	LAC	NEN	WCA
Board approval to effectiveness	4.6	5.6	13.7	8.1	6.3
Effectiveness to first disbursement	10.3	8.6	9.6	13.0	9.6
Subtotal (Board approval to first disbursement)	14.8	14.2	23.3	21.1	15.9
First to second disbursement	7.9	6.6	8.2	7.8	6.4
Grant total (Board approval to second disbursement)	22.7	20.8	31.5	28.9	22.3

The latest performance data from 2015 confirm the overall picture from the kernel density graphs (see Table 4). Projects in the APR and ESA regions tend to enter quickly into force, and LAC projects take, on average, more than a year to do the same. All in all, projects in the APR, ESA and WCA regions take, on average, 21 to 23 months for the time between approval and second disbursement, whereas NEN projects take, on average, 29 months and LAC 31.5 months.

Disbursement effectiveness of IFAD-supported projects

This section presents descriptive statistics on the disbursement effectiveness of IFAD's closed and active portfolio. The closed portfolio covers here all projects that were in "financial closure" status as of 31 December 2015, and the active portfolio those that had entered into force and had not been in financial closure status as of the same date. For the closed portfolio, final gross disbursement rates could be calculated across projects, country programmes and regions. For IFAD's active portfolio, disbursement effectiveness was approximated by calculating the average deviation of projects, country programmes and regions from the respective benchmark disbursement profiles.

Disbursement across project life: Benchmark Disbursement Profiles

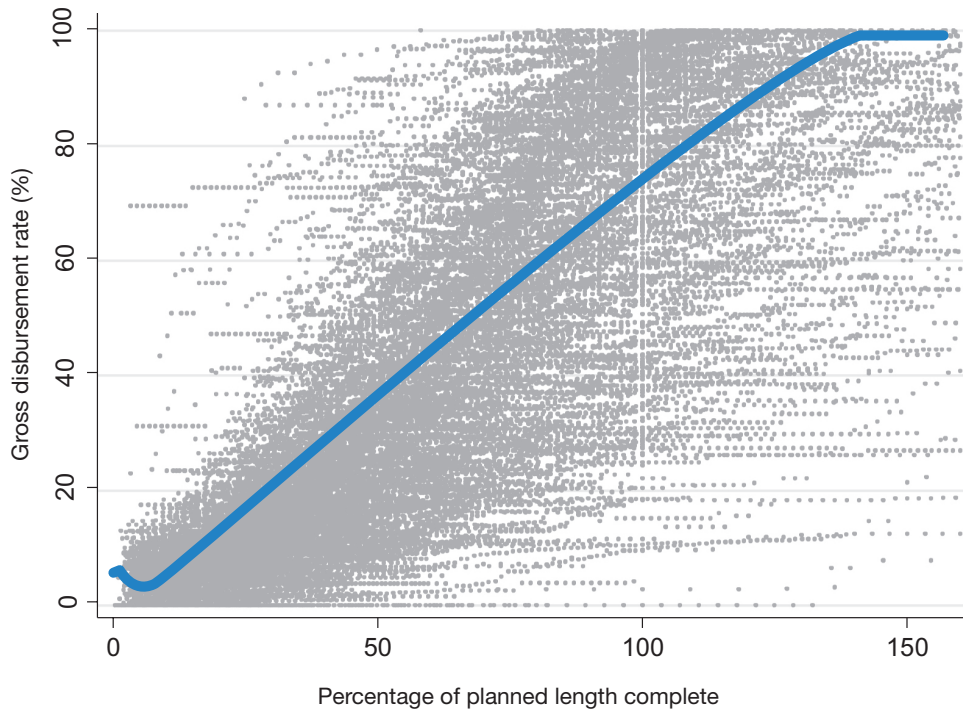
Figure 7 illustrates the benchmark curve for all IFAD-supported projects' disbursement rates, generated using the method described in the section on disbursement effectiveness (see page 15). The y-axis shows the actual disbursement rates, and the plotted values represent disbursement rates of individual projects at different time intervals. If these values deviate positively from the benchmark curve, projects have a positive disbursement performance. The x-axis shows project duration as percentage of planned project length.

Table 5: Overall Benchmark Disbursement Profile for disbursement rates of IFAD-supported projects

Percentage of planned time reached														
10	20	30	40	50	60	70	80	90	100	110	118	130	140	150
2.8	8.6	16.7	25.1	33.4	41.6	49.4	57.0	64.4	71.4	78.2	83.5	91.3	97.5	100

Source: Own calculation.

Figure 7: Benchmark curve for overall disbursement rate



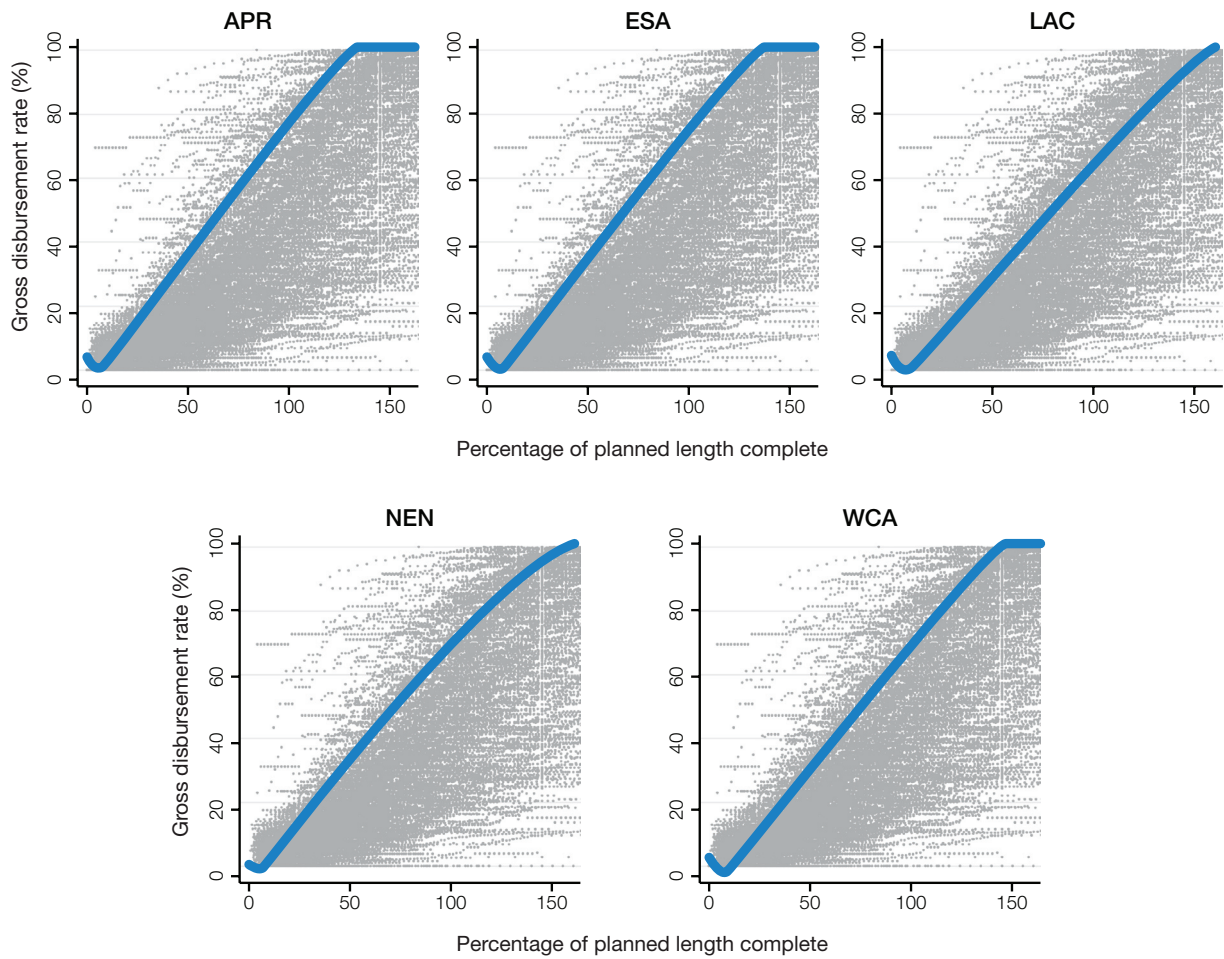
Source: Own calculation based on internal disbursement data. The benchmark curve is based on 374 projects that completed within or are currently below a time overrun of 18 per cent. Projects from Botswana, Mexico and Morocco (pre-financing arrangements) as well as from Algeria (government repaid the loan right after project start) and Palestine (political circumstances) were excluded from the benchmark curve.

In plotting the distribution across stages of planned project length, the benchmark curve follows a “S” shape, whereby it begins with lower, slightly increasing values that go up at relatively higher rates during the mid-stages and then peter out as project completion is reached. For illustrative purposes, Table 5 presents the benchmark values for 10 percentile intervals of planned lifetime.¹⁰ As the benchmark values serve as an overall reference point for a positive disbursement performance, this will hereafter be referred to as the “Benchmark Disbursement Profile” (BDP).¹¹

10. As the benchmark values are calculated for each month between 0 and 100 per cent of the elapsed time, the disbursement rates taken for the illustrated values represent the average of all values within half a percent of either side of the focal point (i.e. the expected disbursement rate at, for example, 10 per cent of the elapsed project time is actually the average of expected disbursement rates for 9.5 to 10.5 per cent of the elapsed project time).

11. The benchmark curve is based on 374 projects that completed within or are currently below a time overrun of 18 per cent. Here are a few examples on how to read the BDP: An ongoing project that has reached 50 per cent of its planned time and disbursed more than 33.3 per cent of its original financing is overachieving against the benchmark; a project that has reached its planned time and has disbursed more than 71 per cent of its original financing is overachieving against the benchmark; and a project that has had a time overrun equivalent to 150 per cent of its planned time, but did not disburse its entire financing, is underachieving against the benchmark.

Figure 8: Benchmark curves for region-specific disbursement rates



Source: Own calculation based on Flexcube disbursement data (following method explained above).

Note: APR = Asia and the Pacific; ESA = East and Southern Africa; LAC = Latin America and the Caribbean; NEN = Near East, North Africa and Europe; WCA = West and Central Africa.

In the absence of clearly defined project types, the overall BDP was further broken down by region. From the visuals in Figure 8, the need for region-specific BDPs is apparent, as the amount expected to be disbursed within each region notably differs. For example, in the case of the APR, ESA and WCA regions, the curve reaches an expected value of 100 per cent disbursement at a much earlier point in the planned project length compared to the curves of LAC and NEN.

In presenting the region-specific BDP curve values at specific project-life intervals (see Table 6), the clear difference across regions is confirmed. For it becomes clear that projects in APR and ESA disburse considerably more in their planned project time than the other three regions. Projects in LAC and WCA tend to have very low disbursement rates at the beginning, but WCA makes up the ground in the final stages. In NEN, projects tend to disburse relatively more at the beginning, but then relatively less from the last third of planned time onwards.

Table 6: Region-specific Benchmark Disbursement Profiles for disbursement rates of IFAD-supported projects

Percentage of planned time reached															
	10	20	30	40	50	60	70	80	90	100	110	118	130	140	150
APR	3.3	9.1	17.3	26.1	34.9	43.5	51.9	60.0	67.8	75.4	82.7	88.3	96.7	100	100
ESA	3.2	9.2	17.6	26.4	35.2	43.8	52.1	60.2	67.8	75.3	82.6	88.1	96.4	100	100
LAC	3.0	7.6	14.5	22.0	30.0	37.0	44.2	51.2	58.1	64.5	70.8	75.8	83.1	88.8	94.5
NEN	2.7	10.2	18.4	26.6	34.3	41.7	48.8	55.5	62.0	68.1	74.0	78.5	85.2	90.5	95.6
WCA	1.7	7.3	15.2	23.7	32.0	40.2	48.2	55.8	63.2	70.4	77.3	82.7	90.5	96.8	100

Source: Own calculation.

Note: APR = Asia and the Pacific; ESA = East and Southern Africa; LAC = Latin America and the Caribbean; NEN = Near East, North Africa and Europe; WCA = West and Central Africa.

The figures beyond 118 per cent of planned time were extrapolated (see method above) and can be interpreted in the following way: Projects in APR and ESA that have a time overrun of 140 per cent are underachieving against their respective BDP if they have not disbursed 100 per cent of the entire project financing; projects in NEN and LAC would still overachieve if they manage to have disbursed 88 per cent of their original financing.

Overall disbursement effectiveness

An analysis of IFAD's closed portfolio is inevitably a reflection of the past. Nevertheless, it can give important insights into overall dynamics that, most likely, change only slowly over time. Based on the sample of closed projects in this study, IFAD's overall disbursement rate amounts to 84.4 per cent. In other words: IFAD-supported projects approved and closed within 1995 to 2015 have disbursed 84.4 per cent of their original financing and returned 16.6 per cent to IFAD.¹² If one looks at the distribution of disbursements, IFAD's closed portfolio is characterized by low initial disbursements reaching, on average, a disbursement rate of only 29.2 per cent half-way through the planned implementation period (see Figure 9). Within the second half of the planned period, disbursement rates picked up and reached almost 70 per cent at the end of the planned period.

A more differentiated picture emerges if the same data are broken down by region (see Figure 10). The disbursement rate for the closed portfolio in NEN is the highest and stands at 90.8 per cent, followed by APR with 88.4 per cent and LAC with 85 per cent. The closed portfolio for projects in sub-Saharan Africa lag behind, with WCA reaching a disbursement rate below 80 per cent, returning one out of every five special drawing rights (SDRs) given to borrowers back to IFAD. Of note is the fact that disbursements in NEN and LAC were low at the planned project start (most likely due to the above mentioned delays in first disbursements), but then picked up steadily. In fact, more than 20 per cent of the original financing allocated to NEN and LAC was disbursed after the planned completion period, showing the relevance of project extensions at the time.

12. Differences across funding sources are only marginal. If one only looks at IFAD financing, the average disbursement rate at financial closure is 87.1 per cent, compared to 85.9 per cent for IFAD-managed supplementary financing and 82.3 per cent for the Belgian Fund for Food Security.

Figure 9: IFAD's overall disbursement rate for its closed portfolio at different stages of planned project lifetime

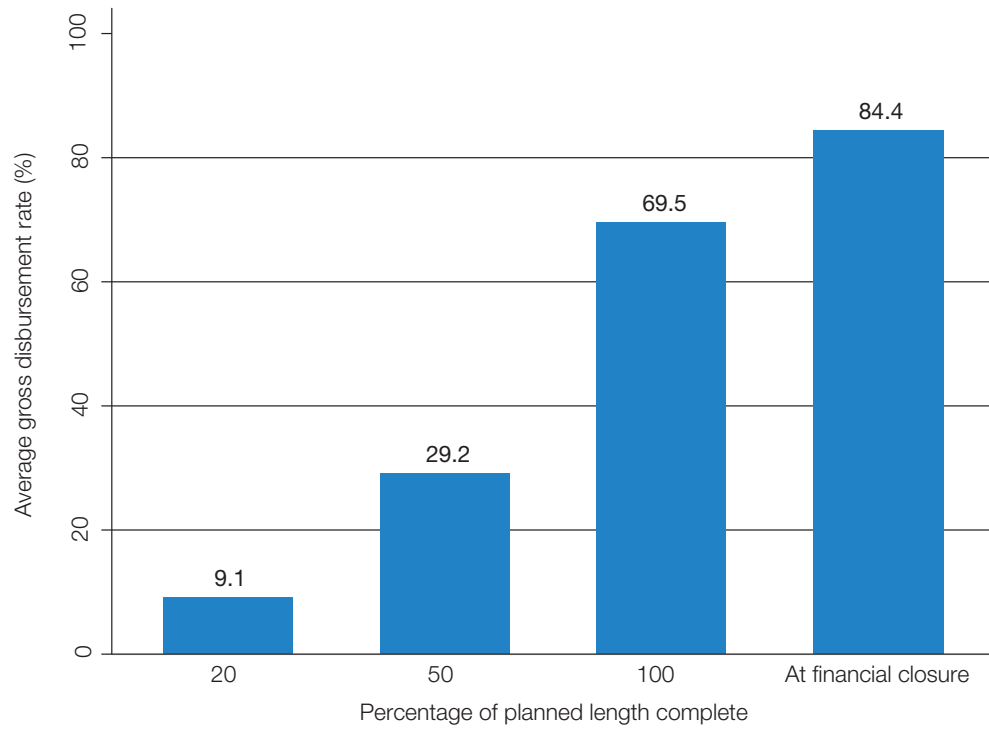
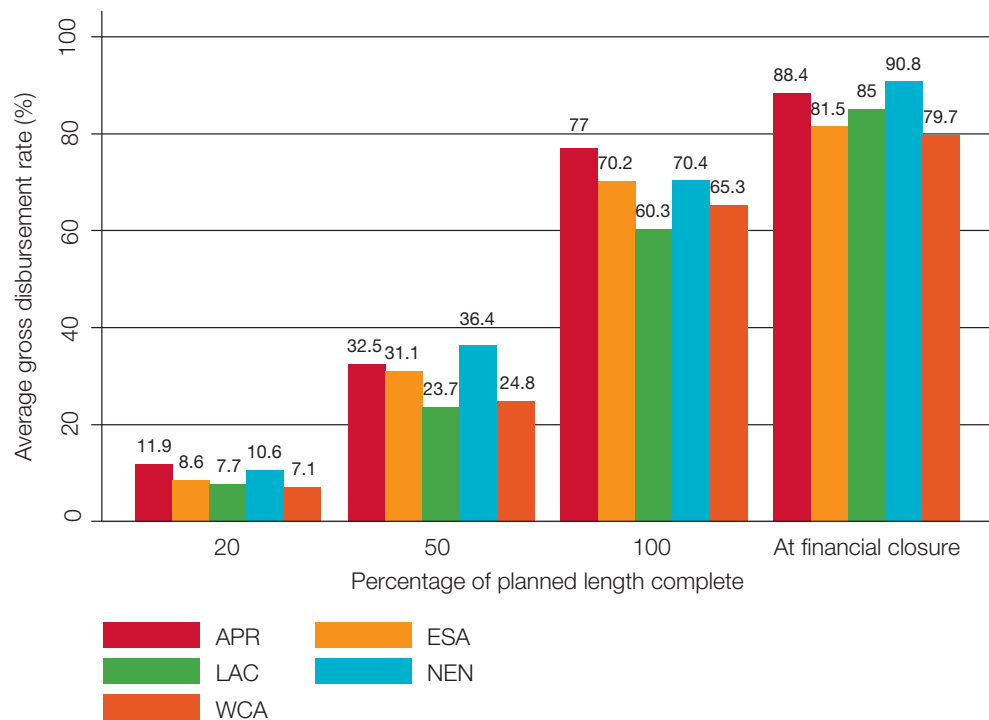


Figure 10: Disbursement rates for regional portfolios of closed projects at different project lifetime intervals



Disbursement effectiveness at the regional and country programme level

This subsection looks at each region's disbursement effectiveness in more detail. For projects that were approved and closed between 1995 and 2015, the (final) disbursement rates are compared across the countries in the region. For ongoing projects, where the "expected" rate at a given point in a project's planned length is important to consider, the average deviation of actual disbursement rates from the region-specific benchmark profiles are compared for each country.

The ongoing portfolio in this study consists of investment projects that were effective or available for disbursement as at 31 December 2015. In order to assess the disbursement rates of these projects, disbursement rates were calculated as at 31 December 2015 and compared to the respective values of the regional Benchmark Disbursement Profile (see Table 6). A positive deviation means that disbursement effectiveness is positive and on track.

Disbursement effectiveness in Asia and the Pacific

The disbursement rate of APR's portfolio of closed country programmes stands at 88.4 per cent. Of particular relevance for IFAD in terms of country-level disbursement rates for closed projects (see Figure 11) is the fact the country programmes in China (CHN), Viet Nam (VNM) and Nepal (NPL) used to have disbursement rates close to 100 per cent, whereas Indonesia (IDN) and India (IND) were clearly lagging behind with disbursements rates of only 60 per cent. All the other countries reached disbursement rates well above 80 per cent, and small countries like Solomon Islands (SLB) and Bhutan (BTN) were among the top disbursers.

A fresh look at APR's active portfolio as of December 2015 (see Figure 12) confirms certain patterns, but also provides new insights. The most striking observation is that the Indonesia (IDN) country programme was literally turned around: disbursements are now very well on track and 8 percentage points above the regional benchmark. This is quite remarkable given that India (IND) remains among the laggards together with Sri Lanka (LKA), Cambodia (KHM) and the Maldives (MDV), as shown in Figure 12. It is also interesting to note that IFAD's new country programme in Timor Leste (TMP) has the highest positive deviation from the benchmark. In line with past performance, disbursements are on track in the Philippines (PHL), Lao People's Democratic Republic (LAO) and Bhutan (BTN), and are also more or less on track in China (CHN) and Viet Nam (VNM).

Figure 11: Disbursement rates for APR country programmes (closed portfolio)

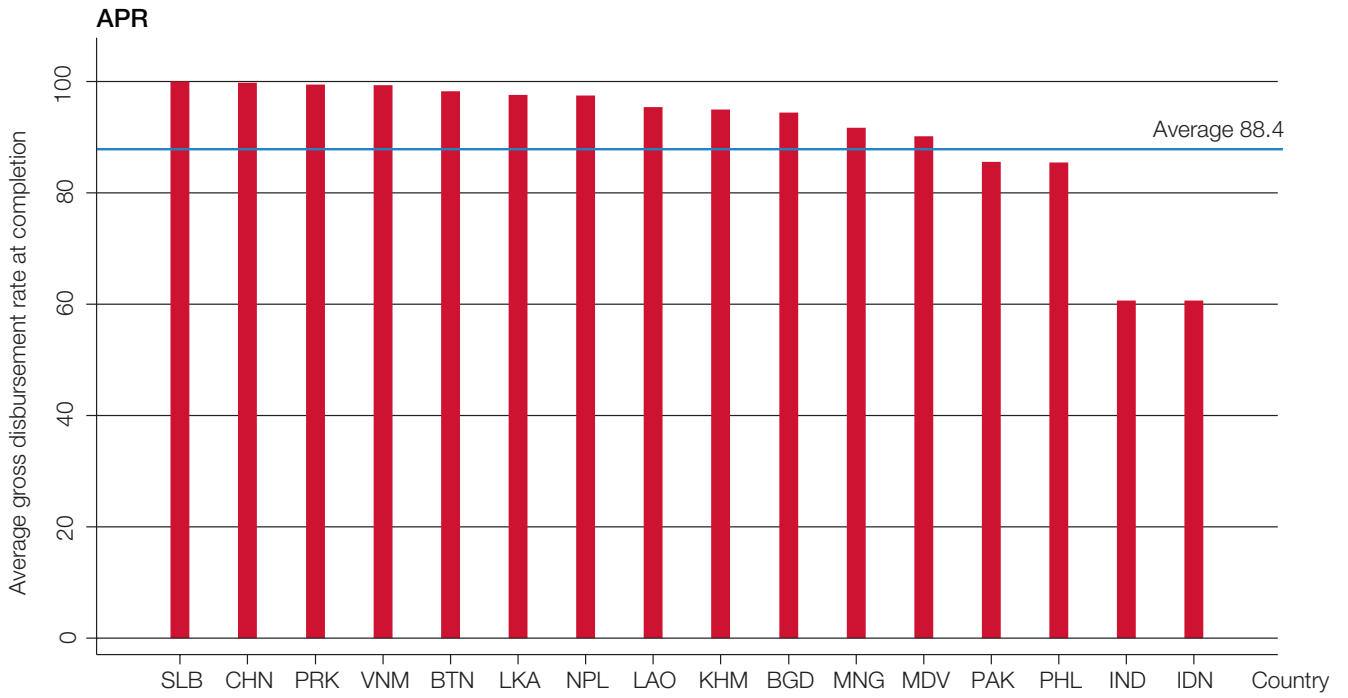
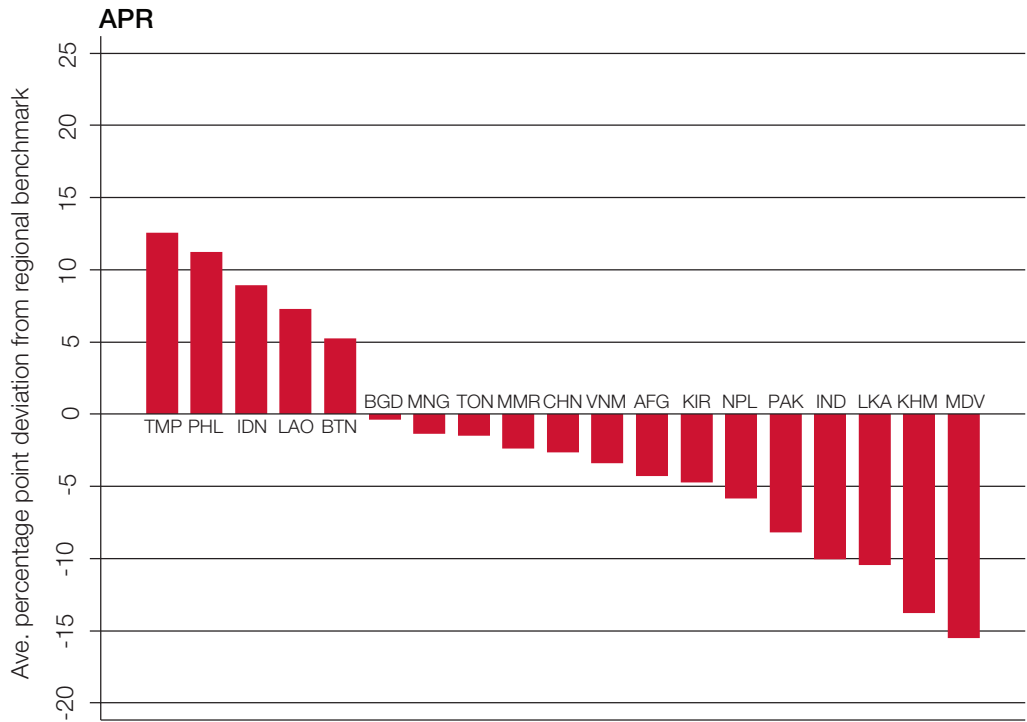


Figure 12: Average deviation of APR country programmes from regional Benchmark Disbursement Profile



Disbursement effectiveness in East and Southern Africa

A closer look at ESA reveals that 12 out of 17 country programmes surpass the regional average of 81.5 per cent quite comfortably (see Figure 13). Country programmes in Eritrea (ERI), Comoros (COM), Burundi (BDI), Madagascar (MDG), Lesotho (LSO) and Rwanda (RWA) reached disbursement rates close to or above 95 per cent, followed by five other countries with disbursement rates at 90 per cent. In fact, one could argue that ESA's overall performance was dragged downwards by five outliers, namely Angola (AGO), Mauritius (MUS), Zambia (ZMB), Tanzania (TZA) and Zimbabwe (ZWE). While the country programme in Tanzania was important in terms of its size, the other ones are rather small. Zimbabwe's portfolio remained inactive for more than two decades, as the country and IFAD have only recently started to re-engage with each other.

If one looks at ESA's active country programmes, the dynamics seem to have changed slightly (see Figure 14). Tanzania and Zambia now feature among the top, together with the past disbursement champions Rwanda and Madagascar. While Angola is again among the worst, the two recently opened country programmes, South Sudan (SSD) and Botswana (BWA), are ranked last. Figures for South Sudan most likely reflect the difficult reality on the ground. For Botswana, however, figures have to be interpreted with caution. As the national government tends to prefinance project activities, it can well be that the deviation is only an artefact reflecting pending reimbursements from IFAD.

Figure 13: Disbursement rates for ESA country programmes (closed portfolio)

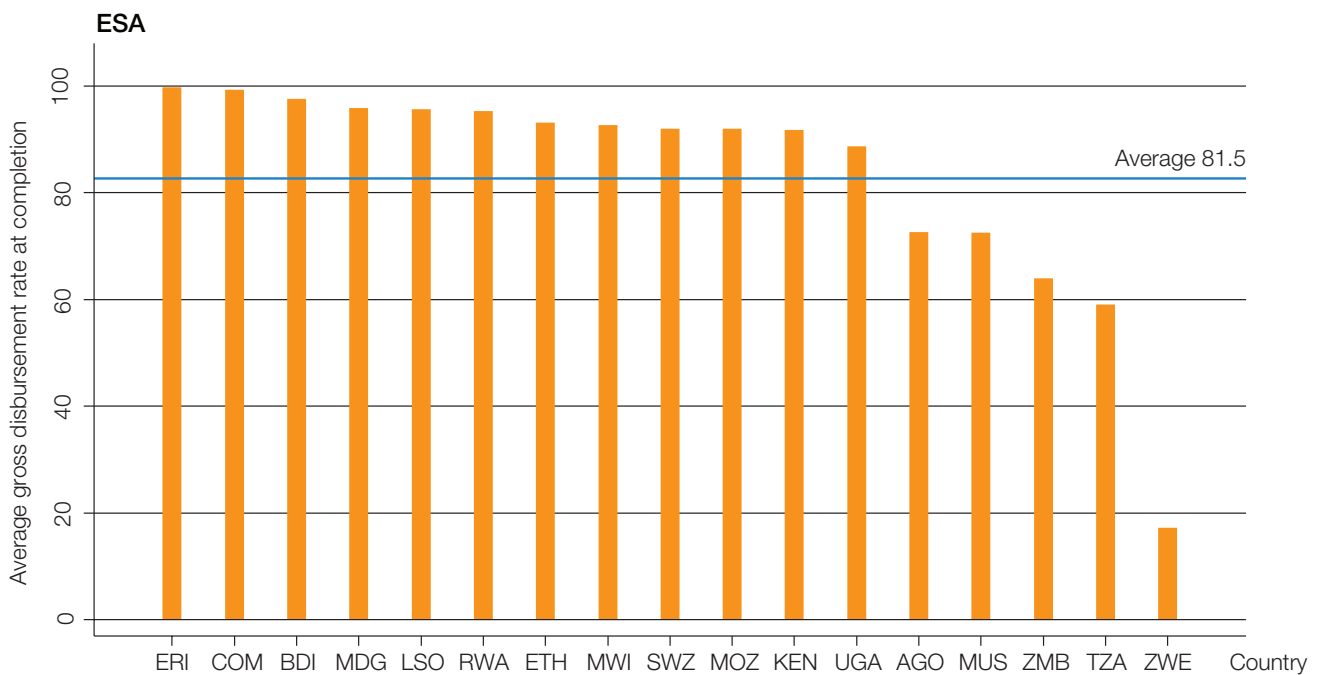
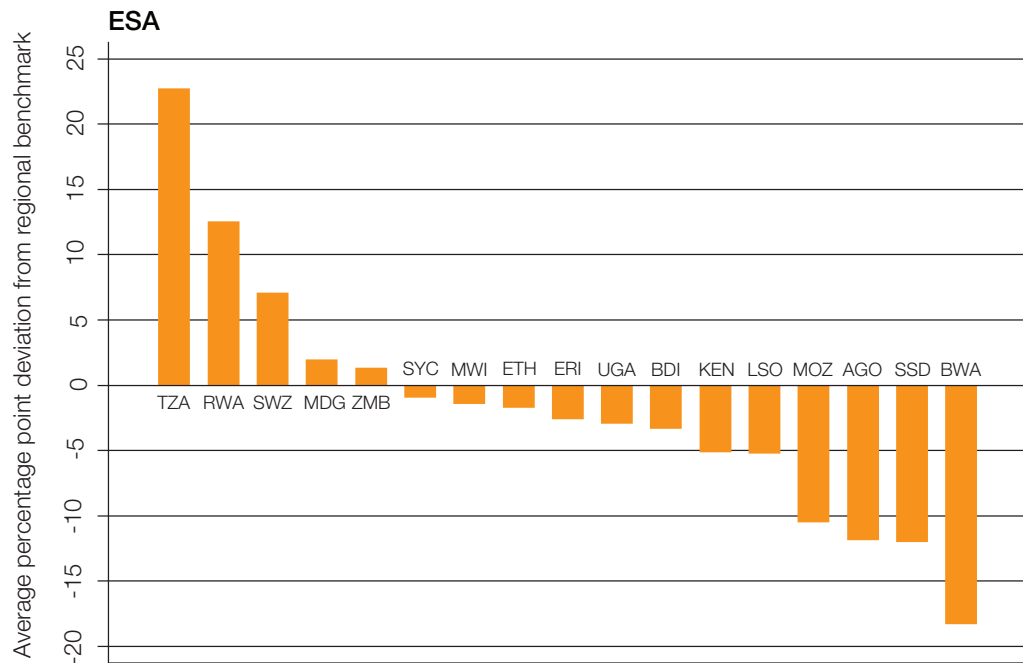


Figure 14: Average deviation of ESA country programmes from regional Benchmark Disbursement Profile



Disbursement effectiveness in Latin America and the Caribbean

The disbursement rates for LAC country programmes with completed projects reveal that a number of countries reached disbursement rates well above 95 per cent, including the Dominican Republic (DOM), Argentina (ARG), Peru (PER) and El Salvador (SLV) (see Figure 15). What is also interesting to note is that, with the exception of Venezuela, all countries that have disbursement rates below the average of 85 per cent are from Central America and the Caribbean, namely Saint Lucia (LCA), Grenada (GRD), Mexico (MEX), Belize (BLZ), Guatemala (GTM) and Panama (PAN).

The newest information on disbursement effectiveness of active projects in LAC shows that disbursements are well on track for a number of countries, including Ecuador (ECU), Bolivia (BOL), and again El Salvador and Argentina (see Figure 16). The previously under-disbursing country programmes for Belize and Grenada are now on track, while the Dominican Republic has fallen far behind. Disbursements for the Haiti country programme have been affected by a number of issues ranging from natural disasters to continuing suspensions, so that the last rank comes with no surprise. Disbursements for Mexico have to be interpreted carefully, as they might just be a reflection of current prefinancing arrangements.

Figure 15: Disbursement rates for LAC country programmes (closed portfolio)

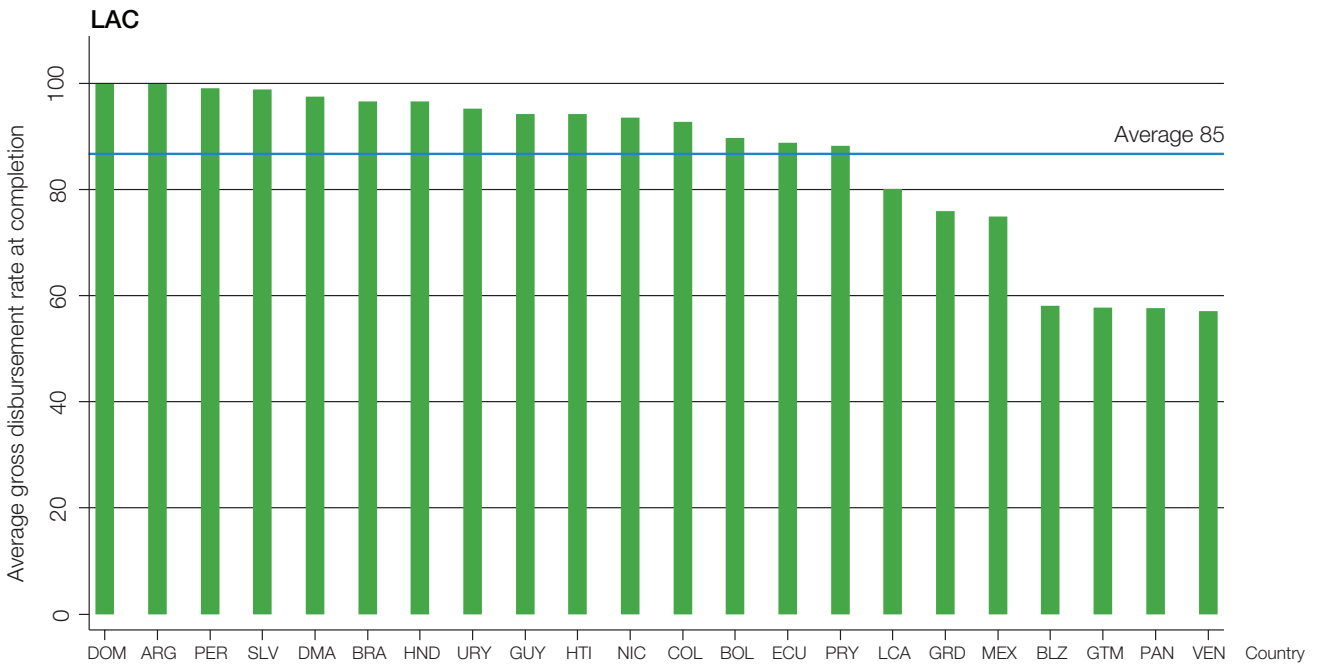
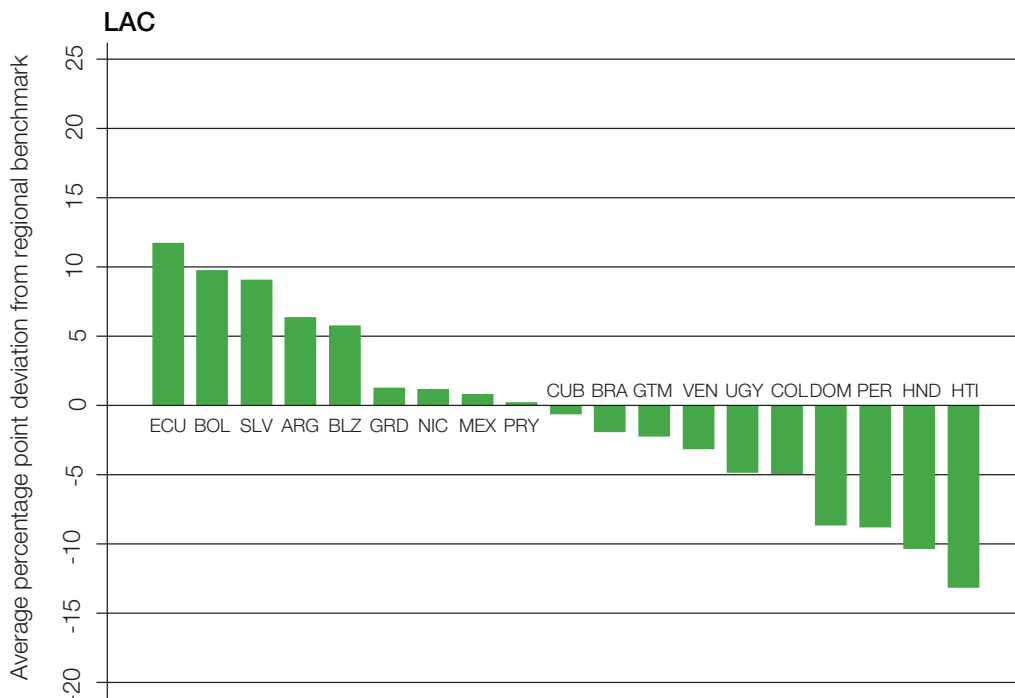


Figure 16: Average deviation of LAC country programmes from regional Benchmark Disbursement Profile



Disbursement effectiveness in the Near East, North Africa and Europe

The disbursement rates for NEN country programmes show a similar picture than other regions in that more than two thirds are situated above the regional average of 90.8 per cent (see Figure 17). The one and only project approved for Romania turns out to be the only one hitting 100 per cent, followed closely by Tunisia (TUN), Armenia (ARM), Azerbaijan (AZE), and Bosnia and Herzegovina (BIH).

Somehow, surprisingly, completed projects in Morocco (MAR) and Turkey (TUR) disbursed only around 70 per cent of their original financing. The very low disbursement rate for Syria (SYR) is most likely the consequence of the early closure of projects due to the war situation. Finally, the country programmes for Lebanon (LBN) and Algeria (DZA) are two extreme outliers. While the reasons for the performance of the first are myriad, the performance of the second can be explained by the fact that Algeria decided to repay its entire debt to IFAD and closed all ongoing projects. Algeria's disbursement rate of 0 per cent was, therefore, excluded from further analysis and is shown here only for sake of completeness.

Most recent disbursement data from NEN in Figure 18 suggest that disbursements in countries such as Jordan (JOR), Uzbekistan (UZB) and Moldova (MDA) are well on track relative to the benchmark. Turkey is again among the underdisbursing countries. The disbursement performance of the active portfolio in Syria, and in Yemen in particular, must have been well on track before their respective conflicts began and suspensions materialized, as the observed deviation from the benchmark is only marginally worse than others. Similarly to Botswana and Mexico, Morocco's disbursement rate has to be put into the context of prefinancing arrangements and possibly pending reimbursement requests.

Figure 17: Disbursement rates for NEN country programmes (closed portfolio)

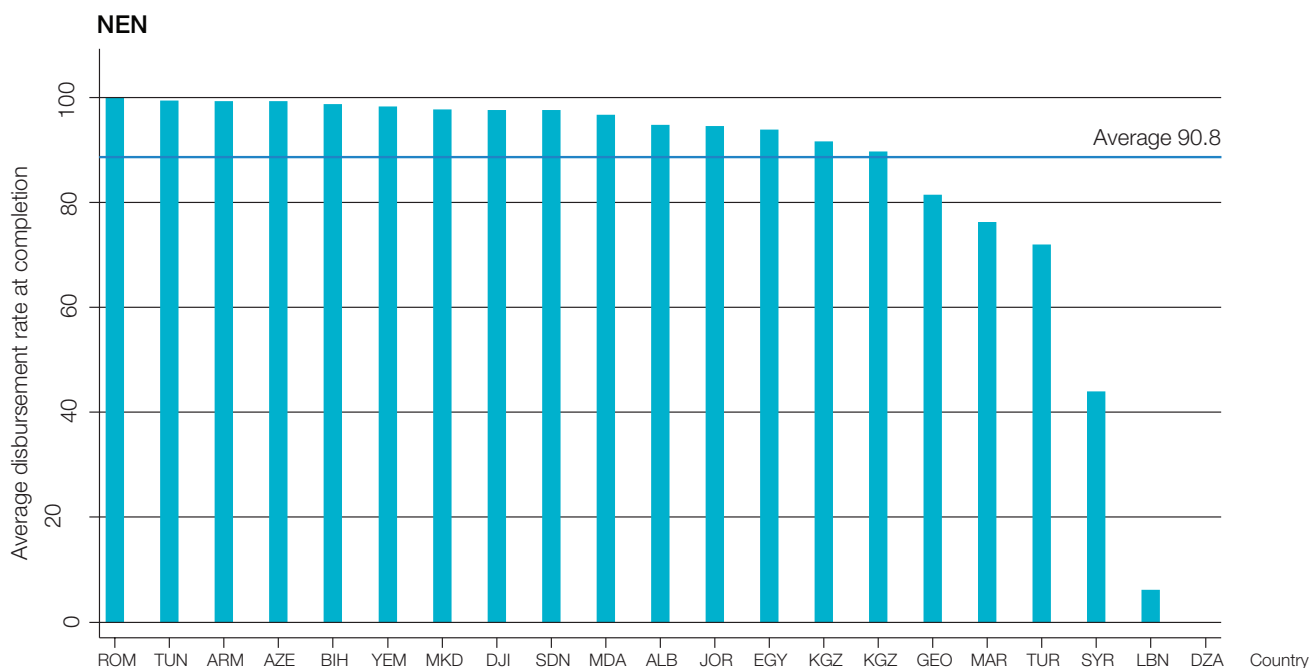
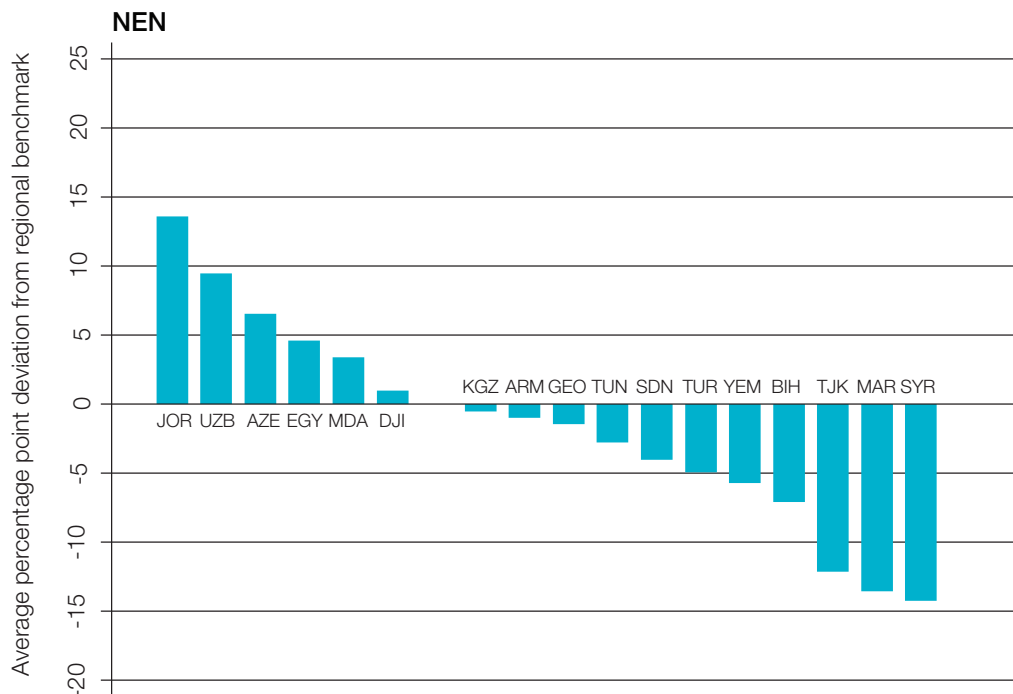


Figure 18: Average deviation of NEN country programmes from regional Benchmark Disbursement Profile



Disbursement effectiveness in West and Central Africa

The disbursement rates displayed for WCA countries show a distinctively different picture than the ones for the other four regions (see Figure 19). Only a few countries such as Gambia (GMB), Senegal (SEN) or Ghana (GHA) reach disbursement rates close to 90 per cent, whereas eight countries have not even reached disbursement rates close to 80 per cent. The country programmes for Guinea-Bissau (GNB), Chad (TCD), Nigeria and Cameroon (CMR) did not achieve the 60 per cent mark, and Togo ranks last with a disbursement rate barely above 20 per cent. These figures seem to suggest that there have been notable absorption capacity issues in the past.

Most recent data on disbursements paint a picture of much less variance across countries than in the past (see Figure 20). All countries are either above or slightly below the regional benchmark. While the performance in Mali (MLI) is most likely a consequence of recent events in the country, the other two making slow progress, Senegal (SEN) and Benin (BEN), deviate only by 6 and 7 percentage points, respectively, from the benchmark. A remarkably positive deviation from the benchmark can be observed for Niger (NER), Gambia (GMB) and Liberia (LBR), implying that disbursement effectiveness in these countries is well on track.

Figure 19: Disbursement rates for WCA country programmes (closed portfolio)

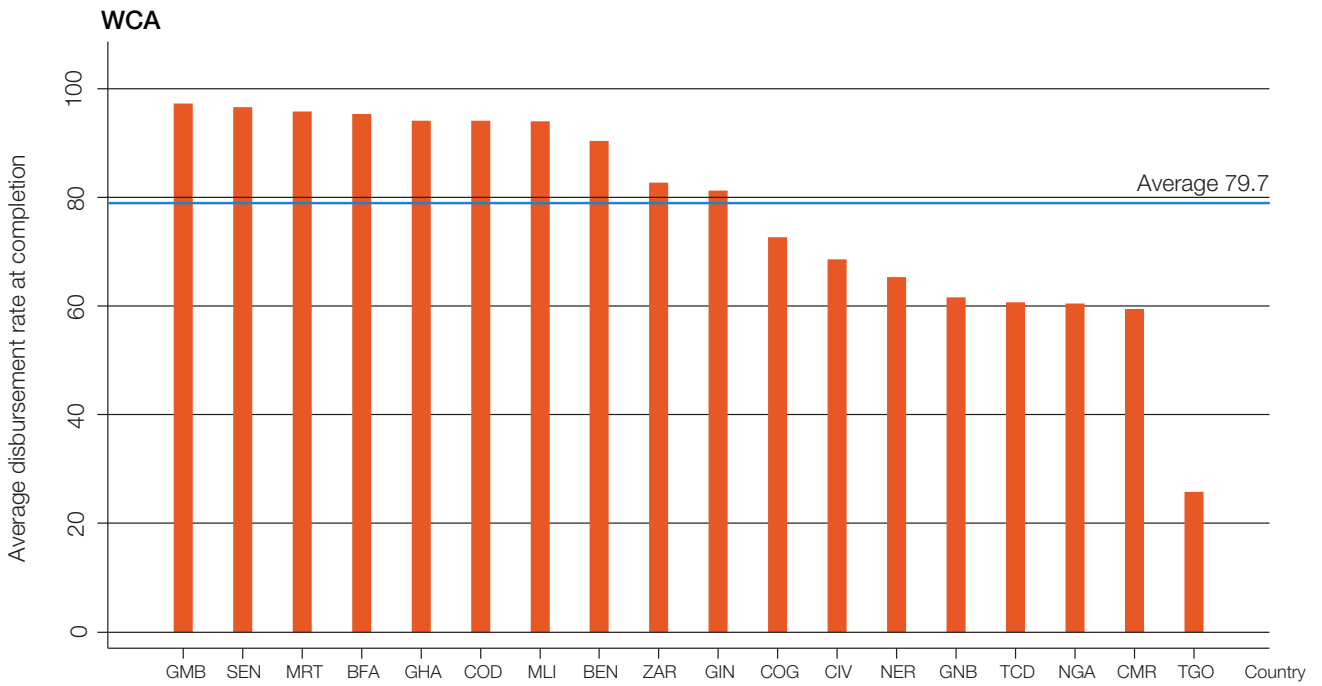
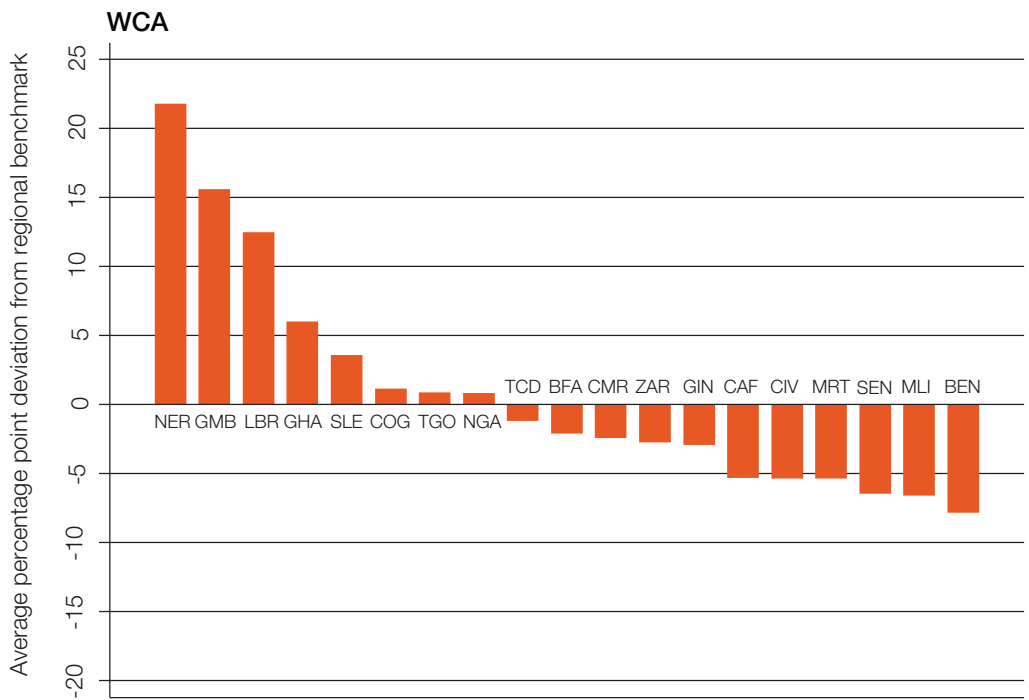


Figure 20: Average deviation of WCA country programmes from regional Benchmark Disbursement Profile



Explaining IFAD's disbursement performance

This section presents the overall results from the econometric investigation into the factors affecting IFAD's disbursement performance. While not all variables that could potentially play a role could be incorporated in the analysis, the included variables explain more than 60 per cent of the observed variance in disbursement readiness and 45 per cent of the observed variance in disbursement effectiveness.¹³

Overview of results

Tables 7 and 8 present the econometric analysis findings for disbursement readiness and effectiveness indicators, respectively. The findings of the analysis show that both internal and external factors matter for IFAD's disbursement performance. Country-level, project-level and IFAD-related factors are correlated with both disbursement readiness and effectiveness, while CPM-related factors only matter for disbursement readiness. As for country-level factors, for example, the likelihood that the disbursements are delayed is significantly increased if a country is a fragile middle-income country, has constrained fiscal space, or has had concurrent elections. In addition, non-fragile low-income countries, countries with a stable local currency, and those with a frequent cycle of elections and natural disasters (e.g. droughts) tend to have higher disbursement rates. The study thus confirms the hypothesis by Ahsan and Gunawan (2010) that a devalued national currency decreases the likelihood (and need) to fully disburse the approved project budget. Interestingly, elections and natural disasters have a negative effect in the short term, but a positive effect in the long run. This could be explained by the fact that continuous events generate more demand for spending the available resources, while the same event can be a hindrance if it occurs unexpectedly at project start-up.

Regarding the size, type and sequencing of project financing, the study shows that larger projects disburse more quickly although at a diminishing rate, with an average financing size of around US\$32 million being the optimal size, which somewhat echoes previous findings for this variable. During implementation, however, IFAD's disbursement rates suffer from excessive (dependence on) cofinancing. While the study also finds that start-up advances do not speed up first disbursements, it shows that a relatively high first disbursement already serves as a good predictor for a quicker second disbursement, suggesting that IFAD efforts to support the submission of larger and better quality withdrawal applications are bearing fruit.

13. These measures of explanatory power are derived from the adjusted r-squared statistics for the econometric models employed for the analysis.

Most importantly, the study shows that IFAD's own performance matters. The results clearly prove that having offices in the field (called IFAD country offices, or ICOs) with nationally recruited IFAD staff (called country programme officer, or CPO) are benefiting IFAD's disbursement performance during implementation. Also ICOs headed by outposted CPMs have a positive impact on both disbursement readiness and fuller use of loan proceeds. Moreover, face-to-face signing of financing agreements (rather than doing so by correspondence) has accelerated the process and almost offset the delays resulting from ratification requirements. Finally, the study shows that turnover, experience and workload of CPMs are important elements of IFAD's disbursement readiness. If the CPM remains the same at approval and during start-up of a project, first and second disbursements are roughly five months quicker than in cases of turnover. Performance is further enhanced if the CPM is experienced, not overloaded with work, and/or a woman.

The following subsections present the results for each of the four areas (country-, project-, IFAD- and CPM-related variables) in more detail. The full results of the econometric analysis are presented in Tables 7 and 8, and an interpretation of these is presented in dedicated tables for each of the four areas.

Table 7: Results from survival model analysis of factors affecting disbursement readiness

Time intervals	Board approval to first disbursement	Board approval to effectiveness	Effectiveness to first disbursement	First to second disbursement	Board approval to second disbursement
	(1)	(2)	(3)	(4)	(5)
Country classification variables					
State fragility index	-0.003 (0.002)	-0.004 (0.003)	-0.005 (0.004)	-0.007* (0.004)	-0.004*** (0.002)
Log (GNI per capita [US\$])	-0.032*** (0.011)	-0.042*** (0.016)	-0.075*** (0.024)	-0.051** (0.022)	-0.031*** (0.009)
Country-level variables					
Log (ODA to agriculture [US\$ of 2014])	0.006 (0.006)	-0.004 (0.009)	0.011 (0.014)	0.023* (0.013)	0.004 (0.005)
Ratification of financing agreement required (1 if yes)	-0.018 (0.013)	-0.063*** (0.018)	0.047* (0.026)	-0.031 (0.026)	-0.017* (0.010)
No. of extreme weather events per year	-0.026*** (0.009)	-0.018 (0.012)	-0.044** (0.020)	-0.011 (0.018)	-0.015** (0.007)
No. of epidemics per year	-0.024* (0.014)	-0.021 (0.019)	0.029 (0.031)	0.004 (0.028)	-0.004 (0.011)
General government revenue (% GDP)	0.002** (0.001)	0.001 (0.001)	0.003* (0.002)	0.002 (0.002)	0.001* (0.001)
Current account balance (% GDP)	-0.002*** (0.001)	-0.002** (0.001)	-0.001 (0.002)	0.001 (0.001)	-0.001 (0.001)
Elections in current year	-0.022* (0.013)	-0.017 (0.017)	-0.014 (0.026)	-0.006 (0.025)	-0.007 (0.009)

Time intervals	Board approval to first disbursement	Board approval to effectiveness	Effectiveness to first disbursement	First to second disbursement	Board approval to second disbursement
	(1)	(2)	(3)	(4)	(5)
Project-level variables					
Log (approved amount [mln US\$])	0.334*** (0.128)	0.291* (0.154)	0.429** (0.208)	-0.184 (0.365)	0.150* (0.089)
Log (approved amount [mln US\$])-squared	-0.109** (0.051)	-0.135** (0.064)	-0.100 (0.086)	0.019 (0.140)	-0.046 (0.036)
Log (approved amount [mln US\$])-cube	0.011* (0.007)	0.018** (0.009)	0.008 (0.011)	0.004 (0.017)	0.005 (0.005)
IFAD has an operational ICO in the country (1 if yes)	-0.032* (0.019)	-0.033 (0.027)	-0.013 (0.039)	-0.054 (0.038)	-0.052*** (0.015)
IFAD has an operational ICO in the country headed by CPM (1 if yes)	0.070** (0.030)	0.075* (0.046)	0.061 (0.058)	0.077 (0.059)	0.068*** (0.022)
Use of start-up funds (1 if yes)	-0.126*** (0.038)	0.007 (0.058)	-0.331*** (0.068)	0.136 (0.114)	-0.036 (0.042)
Start-up amount (% of amount approved)				-0.032 (0.040)	-0.011 (0.017)
First disbursement amount (% of amount approved)				-0.000 (0.002)	0.002*** (0.001)
IFAD-related variables					
Financing agreement was signed by correspondence (1 if yes)	-0.027 (0.020)	-0.106*** (0.027)	0.063* (0.037)	0.022 (0.040)	-0.006 (0.015)
Project implementation manual required	0.005 (0.014)	-0.005 (0.030)	-0.038 (0.031)	0.053* (0.029)	0.016 (0.011)
Number of accounts required	-0.009 (0.008)	-0.006 (0.010)	0.015 (0.020)	0.012 (0.015)	0.001 (0.006)
PMU required (1 if yes)	0.037** (0.014)	-0.003 (0.033)	0.045 (0.031)	-0.029 (0.028)	0.010 (0.011)
Project director required (1 if yes)	0.004 (0.014)	-0.006 (0.030)	0.016 (0.031)	0.006 (0.028)	0.007 (0.011)
Number of conditions (overall)	-0.001 (0.003)			-0.004 (0.006)	-0.002 (0.002)
CPM-related variables					
CPM is woman (1 if yes)	0.011 (0.017)	0.063*** (0.024)	-0.024 (0.035)	0.086** (0.036)	0.012 (0.013)
CPM who designed the project is also supervising it (1 if yes)	0.030** (0.013)	0.067*** (0.021)	0.046 (0.028)	-0.018 (0.024)	-0.013 (0.010)
Log (volume of current portfolio for which CPM has responsibility [mln of US\$])	-0.006 (0.008)	0.032*** (0.011)	-0.022 (0.016)	-0.011 (0.022)	-0.010* (0.006)
Number of project designs, top-up designs and directly supervised projects by CPM	0.003 (0.004)	0.013** (0.006)	-0.025*** (0.009)	0.003 (0.008)	0.008** (0.003)
Regional fixed effects	YES	YES	YES	YES	YES
Number of observations	3 346	2 324	1 384	1 528	4 506

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

Table 8: Results from econometric analysis of factors affecting disbursement effectiveness

Time intervals	Disbursement rates during implementation	Disbursement rates at financial closure (time varying explanatory variables averaged over project period unless specified)
	(1)	(2)
Country classification variables		
State fragility index	-0.511* (0.303)	-0.523 (0.413)
Log (GNI per capita [US\$]) Country is a small state (1 if yes)	2.340 (4.592)	13.10** (5.103)
Region (compared to APR):		
East and Southern Africa (ESA)	3.493 (3.319)	1.001 (5.179)
Latin America and the Caribbean (LAC)	5.240 (3.810)	-2.406 (5.140)
Near East, North Africa and Europe (NEN)	5.348* (3.173)	9.566* (5.046)
West and Central Africa (WCA)	0.855 (3.174)	-2.204 (5.103)
Country-level variables		
Log (ODA to agriculture [US\$ of 2014])	0.00231 (0.00312)	-0.00379 (0.0100)
No. of incidences of drought (totalled for model 2)	-0.220 (0.890)	0.651** (0.318)
No. of extreme weather events per year (totalled for model 2)	0.0863 (0.584)	0.241* (0.124)
No. of incidences of agricultural disaster (totalled for model 2)	1.569 (2.475)	1.952 (1.847)
Current account balance (% GDP)	-0.00731 (0.101)	-0.253 (0.212)
Elections in current year (totalled for model 2)	-0.134 (0.670)	-3.210** (1.244)
SDR to local currency unit exchange rate	-0.962 (1.613)	-3.210** (1.244)
Project-level variables		
Share of budget dedicated to infrastructure (%)	0.0585 (0.0448)	0.0186 (0.0625)
Share of budget dedicated to credit (%)	0.0466 (0.0376)	0.00570 (0.0592)
Share of budget dedicated to soft activities (%)	0.0588 (0.0872)	0.132 (0.107)
IFAD has an operational ICO in the country (1 if yes)	4.642** (2.106)	-8.955* (4.671)
IFAD has an operational ICO in the country headed by CPM (1 if yes)	-0.256 (1.778)	23.71*** (8.616)
Project was directly supervised in previous period (1 if yes)	-1.248 (1.240)	16.11*** (3.238)

Time intervals	Disbursement rates during implementation	Disbursement rates at financial closure (time varying explanatory variables averaged over project period unless specified)
	(1)	(2)
Cofinancing ratio (amount managed vs amount not managed)	-0.391** (0.183)	0.278 (0.370)
Grant ratio (grant vs non-grant)	15.19*** (3.258)	12.48*** (4.615)
Year of project approval	- -	-2.748*** (0.477)
CPM-related variables		
CPM is woman (1 if yes)	-2.277 (1.738)	-3.773 (4.260)
Volume of current portfolio for which CPM has responsibility (mln of US\$)	1.19e-08 (1.64e-08)	-9.06e-08 (8.58e-08)
CPM experience (months)	0.266 (0.177)	0.275 (0.473)
No. of changes of CPM (totalled for model 2)	1.565 (1.014)	0.732 (1.279)
Year of disbursement (for model 2 only, compared to 1996)		
1997	-11.99**(5.165)	-
1998	-1.707(6.626)	-
1999	-1.161(5.610)	-
2000	-5.293(5.380)	-
2001	-5.977(5.587)	-
2002	-6.214(5.698)	-
2003	-5.750(5.845)	-
2004	-6.598(6.048)	-
2005	-5.965(5.980)	-
2006	-5.298(6.051)	-
2007	-2.882(6.294)	-
2008	-1.221(6.439)	-
2009	-0.581(6.532)	-
2010	3.570(6.793)	-
2011	4.877(6.931)	-
2012	6.927(6.946)	-
2013	8.179(7.079)	-
2014	10.21(7.432)	-
Effect of disbursement rate in previous period	3.046***	-

Note: Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

Country-related variables

Fragility, income and size of a country represent essential dimensions of IFAD's differentiated approaches and strategies to engage with countries. This study confirms that all of these dimensions are important for explaining disbursement performance, but to a different extent (see Table 9).

Fragility is clearly detrimental to disbursement performance. On average, each point increase on the 0-25 fragility index scale counts for 14 days of additional delay between first and second disbursement.¹⁴ Thus, countries with extreme fragility take, on average, around 300 days longer between first and second disbursement than countries with almost no fragility.¹⁵ Fragility has also a significantly negative effect on disbursement rates during project life. For disbursement rates at financial closure, fragility does not seem to matter at the country level. Unfortunately, the fragility index does not allow for a more detailed analysis of fragile situations within a country (which would be of relevance for India or Nigeria, for example).

Income and financing terms are the most important country-level variables to explain disbursement performance. Disbursement readiness is indeed significantly better in lower-income countries than in higher-income countries. During implementation, the disbursement rates of projects that receive 100 per cent grant or concessional loan financing are, on average, 15 percentage points higher than those receiving 0 per cent of such financing. At financial closure, the difference is almost the same: countries that receive IFAD financing on ordinary or blend terms have disbursement rates that are, on average, 12 percentage points lower than highly concessional countries. In addition, small states (i.e. states with fewer than 1.5 million inhabitants) seem to better absorb and fully use IFAD-managed funds. The disbursement rates at financial closure are significantly higher and surpass the ones of bigger countries by 13 percentage points, on average. The underlying mechanism for the fact that smaller and poorer countries tend to disburse more than bigger and richer countries is unknown, but one could speculate that poorer and smaller countries are more in need of borrowed resources and tend to give the supported projects a relatively higher importance when it comes to effectively executing them.

Another set of country variables that were analysed in this study relates to political, economic and financial circumstances (see Table 10).

Official development assistance (ODA) to agriculture (in United States dollars) was selected as a proxy for institutional and absorption capacity of agricultural ministries. The results confirm that countries with higher ODA tend to get projects quicker off the ground. However, there is no significant relationship with disbursement rates.

An interesting finding of this study is that parliamentary or presidential elections can be an important hindrance to disbursement readiness. If the elections take place in the year in which the project is supposed to become effective and/or has its first disbursements, it takes, on average, 84 days longer to have a first disbursement and 141 days longer to have a second disbursement after approval. Yet, political campaigns and elections are significantly beneficial to reaching higher disbursement rates at financial closure. With each election that takes place between effectiveness and financial closure, disbursement rates increase, on average, by 0.9 percentage points.

14. This and the following statements are under the *ceteris paribus* ("all other things equal") assumption.

15. In 2014, the most fragile IFAD Member States were the Central African Republic and South Sudan (fragility index of "24"), and the least fragile ones Argentina and Mauritius (fragility index of "1"). Source: 2014 State Fragility Index.

Table 9: Results for country-level variables: country classification variables

Variables	Disbursement readiness		Disbursement effectiveness	
	Time to first disbursement	Time to second disbursement	Disbursement rates during life	Disbursement rates at closure
State fragility index (The higher, the ...)	ns	Slower*** (+14 days per point)	Lower* (-0.5%)	ns
GNI per capita (The higher, the ...)	Slower**	Slower***	-	-
Financing terms (The higher the ratio of grant and non-concessional financing, the ...)	-	-	Higher*** (+15%)	Higher*** (+12%)
Small state (If yes, then...)	-	-	ns	Higher** (+13%)

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

Table 10: Results for country-level variables: socio-economic and political variables

Variables	Disbursement readiness		Disbursement effectiveness	
	Time to first disbursement	Time to second disbursement	Disbursement rates during life	Disbursement rates at closure
ODA to agriculture (The higher, the...)	Quicker** (a)	Quicker*** (a)	ns	ns
Elections in current year (If yes, then...)	Slower*** (+84 days)	Slower*** (a) (+141 days)	ns	Higher* (+0.9% per election)
General government revenue (The higher as % of GDP, the...)	Quicker**	Quicker**	-	-
Current account balance (The higher as % of GDP, the...)	Slower***	ns	ns	ns
SDR/local currency exchange rate (The more the SDR strengthens against the local currency, the...)	-	-	-	Lower** (-3.2%)

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

(a) Level only significant in one of the two statistical models.

Table 11: The importance of country-level variables for disbursement performance: results (Part 3)

Variables	Disbursement readiness		Disbursement effectiveness	
	Time to first disbursement	Time to second disbursement	Disbursement rates during life	Disbursement rates at closure
Number of extreme weather events (The more events, the ...)	Slower*** (+8 days per event)	Slower*** (+11 days per event)	ns	Higher* (+0.2% per event)
Number of epidemics (The more epidemics, the ...)	Slower*** (+7 days per event)	Slower* (+3 days per event)	-	-
Number of incidents of drought (The more events, the ...)	-	-	ns	Higher** (+0.7% per event)
Number of incidents of agricultural disasters (The more events, the ...)	-	-	ns	ns

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

The indicators for general government revenue and current account balance are important determinants for the fiscal space of a particular country.¹⁶ In case of lower revenues, the fiscal space of governments is constrained and the results show that governments are more likely to postpone decisions on counterpart financing and or/effectiveness of IFAD-supported projects to the next budget cycle. Countries with a positive account balance tend to be slower in getting projects effective and off the ground than countries that have a negative account balance and are, thus, more in need of borrowed funds from IFAD.

Finally, this study shows that fluctuations in local currency have a significant effect on disbursement rates recorded at financial closure. In fact, the more the local currency devaluates against the loan denomination currency "special drawing right" (SDR), the better the disbursement performance, the mechanism for which is likely to be that a project is getting more local cash for a given amount of SDR, and does not need more than the one originally budgeted for in local currency.¹⁷ As the number of SDRs per local currency unit increases by one, the outcome variable decreases, on average, by around 3.2 percentage points. The significance of this result would be invalidated if inflation increased as the local currency weakened, but this study controls for a number of variables that are highly correlated with inflation rates – with inflation itself not being included because of this multicollinearity – and so we can be reasonably confident that this effect holds regardless of inflation rates.

16. Revenues are derived from tax and other government income and "...provide an indication of the importance of the public sector in the economy in terms of available financial resources". Current account balance refers to the "...sum of the balance of trade (goods and services exports less imports), net income from abroad and net current transfers. A positive current account balance indicates that the nation is a net lender to the rest of the world, while a negative current account balance indicates that it is a net borrower from the rest of the world". Sources: OECD Data and Investopedia.

17. The composition of the SDR is determined by the International Monetary Fund and consists of a weighted basket of the world's major currencies (United States dollar, euro, yen, British pound and, as of October 2016, Chinese renminbi).

This study also looked at the importance of natural and human disasters (see Table 11). The data confirm that extreme weather events and epidemics have a significantly negative effect on disbursement readiness. However, natural disasters do not necessarily have a negative effect on disbursement rates during implementation. Data suggest that disbursement rates at financial closure (i.e. after the respective shocks) tend to be higher for projects that were hit by extreme weather events and/or incidents of drought. The finding that natural and human disasters do not seem to have any significant effect on year-on-year disbursement rates needs to be put into context and understood with caution. Unfortunately, the available data just record whether an event happened or not. No comparable historic data were found that would allow measuring the relative impact and magnitude of disasters such as, for example, the recent Ebola crisis in Western Africa.

Project-related variables

Project-level indicators such as the performance of the PMU, the role and competence of project staff, or the quality of service providers and procurement activities are important dimensions that have been widely recognized as important factors that influence IFAD's disbursement effectiveness. Although these factors were outside of the scope of this study due to the lack of suitable data, there are other variables at the project level that reveal interesting insights about their effect on IFAD's disbursement performance (see Table 12).

First, the study finds that the *approved amount of IFAD financing* has a significant effect on the speed of first and second disbursements. Projects with an approved amount of roughly US\$32 million disburse significantly quicker than projects with a much higher or a much lower financing. Consequently, the fact that IFAD tends to design bigger projects – as evidenced by an average size of US\$28.5 million for new projects in IFAD9 compared to US\$25.8 in IFAD8 – is not only more cost-efficient, but also benefiting IFAD's disbursement performance.

In addition, the study shows that a relatively *high first disbursement* is a good predictor for a quicker second disbursement. This was not necessarily expected, as a high first disbursement could have also implied a temporary “saturating” effect on the need for a second disbursement. Instead, the results suggest that IFAD's efforts to support the submission of larger, and better quality, withdrawal applications are bearing fruit.

Surprisingly, whether a project has availed of a *start-up advance* does not seem to have any positive effect on either first or second disbursements. On the one hand, one could argue that this finding is not representative of the tool itself given the small basis (just 21 start-up advances granted in the focal period) and the fact that the reasons for start-up advances (e.g. potential implementation problems) and not the tool itself drive the delay. On the other hand, however, there could be some generic issues related to the tool itself. First, some countries do not request any start-up advance because of legal reasons. Second, many countries do not use the start-up advance, even if respective financing agreements have detailed provisions for its use. Third, requested “start-up packages” seem to differ widely across projects, with only a few projects requesting amounts below US\$100,000 and a majority asking for start-up advances of US\$200,000 to US\$500,000.

This study also looked at the effect of high amounts of *cofinancing* on project execution, measured as the ratio between non-IFAD managed funds (domestic and international) and IFAD-managed funds (including Spanish Trust Fund and other funds, usually categorized

as cofinancing). The result shows that there is a significant relationship between lower disbursements of IFAD-managed funds and higher amounts of non-IFAD managed funds. As expected, excessive amounts of cofinancing seem to add to complications in terms of managing and sequencing project activities. In the period between 2005 and 2014, there were 27 projects that were initiated and primarily financed by IFAD's respective cofinancier, 12 of which were in APR, 6 in ESA and WCA, respectively, and 3 in NEN.

Lastly, the nature and type of certain project activities do not have a significant effect on IFAD's disbursement performance. Disbursement rates of single projects do not seem to be driven by the relative share of budget committed to civil works, credit or soft activities such as trainings and workshops. However, this statement is only based on planned expenditures, and not on actual expenditures.

Table 12: The importance of project-level variables for disbursement performance: results

Variables	Disbursement readiness		Disbursement effectiveness	
	Time to first disbursement	Time to second disbursement	Disbursement rates during life	Disbursement rates at closure
Approved IFAD financing (The higher the amount, the...)	Quicker*** (optimal: US\$32 million)	Quicker*	-	-
First disbursement (as % of approved) (The higher the first disbursement, the ...)	-	Quicker***	-	-
Use of start-up funds (If used, then ...)	Slower*** (a)	ns	-	-
Start-up advance (as % of approved) (The higher the start-up, the ...)	-	ns	-	-
Cofinancing ratio (The higher, the ...)	-	-	Lower** (-0.4%)	ns
Infrastructure financing (The higher as % planned, the ...)	-	-	ns	ns
Credit financing (The higher as % planned, the ...)	-	-	ns	ns
Soft activities financing (The higher as % planned, the ...)	-	-	ns	ns

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

(a) Level only significant in one of the two statistical models.

IFAD-related variables

An important area in which IFAD can influence disbursement readiness is during the negotiation of financing agreements. In this phase, IFAD interacts with the partner countries and sets conditions for effectiveness (until 2008) and first withdrawals. Once the first disbursement is made, IFAD supervises project implementation and provides implementation support, as appropriate. This is now increasingly done through IFAD country offices (ICOs) that are staffed by internationally recruited country programme managers (CPMs) and/or nationally recruited country programme officers (CPOs). The extent to which these offices and staff have contributed to increased disbursement performance is measured by comparing disbursement performance and presence of ICOs and staff (yes/no) on an averaged year-on-year basis (see Table 13).

Table 13: The importance of project-level variables for disbursement readiness: results

Variables	Disbursement readiness	
	Time to first disbursement	Time to second disbursement
Ratification of financing agreement (If required, then ...)	ns (Slower for approval to entry into force ^{***}) (Quicker for entry into force to first disbursement ^{***})	ns
Financing agreement was signed by correspondence (If yes, then ...)	ns (Slower for approval to entry into force ^{***})	ns
Project implementation manual required (If yes, then ...)	ns	ns (Quicker for first to second disbursement [*])
Number of accounts required (The higher the number of accounts, the ...)	ns	ns
Project management unit required (If yes, then ...)	Quicker^{***} (-61 days)	ns
Project director required (If yes, then ...)	ns	ns
Number of conditions (The higher the number of conditions, the...)	ns	ns

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: ^{***} p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ^{**} p < 0.05; ^{*} p < 0.1.

Contrary to initial expectations, the results show that the ratification of financing agreements has no significant effect on the speed of first disbursements. While ratification has a significantly negative effect on the time from approval to entry into force, it has a positive effect on the time from entry into force to first disbursement. In other words: ratification requirements seem to be more of a formality. They do slow down the effectiveness process, but the delay is then caught up during the second phase, most likely because project preparations start regardless of ratification requirements. Yet, there are important regional differences. The detailed data show that 63 per cent of all NEN projects approved in the focal period required ratification, but only 7 per cent of APR projects (see Table 14). While this explains differences between NEN and APR, results for WCA and ESA confirm that the frequency of ratification requirements by regional portfolio do not necessarily correlate with significant delays for first disbursements.

Another interesting finding is that IFAD's efforts to prioritize face-to-face signings of financing agreements over signing by correspondence pays off. The fact that IFAD is increasingly engaging directly with the signing counterparts has a significantly positive effect on the time lag between approval and entry into force. However, the time saved is not significant enough to make a difference for the whole process between approval and first disbursement, and also regional differences are remarkable. Since 2009, more than three fourths of all financing agreements were signed face-to-face at IFAD headquarters or in the respective capitals, but just 46 per cent of all agreements for LAC countries, even though WCA and NEN had more projects with ratification requirements than LAC (see Table 14).

The analysis of conditions for effectiveness and withdrawal applications show that they do not have a statistically significant effect on first or second disbursements, unless they are abolished (almost) in its entirety, as was the case with the effectiveness conditions following the 2009 policy revision. The results also show that a condition to set up a PMU has a positive effect on the speed of first disbursements, most likely because the push to set up PMUs has positive spillover effects on clearer responsibilities and accountabilities for project execution at the national level. The same is true for a project implementation manual, which, if required, helps to speed up the process between first and second disbursements. Finally, the total number of conditions and the number of accounts required are associated with a slight delay in first disbursements, but not in a statistically significant way. Interestingly, conditions for withdrawal applications seem to differ widely across regions (see Table 15). Given the results of the study, conditions for financing agreements are most favourable in APR and LAC as projects are mostly required to set up a PMU, and least favourable in

Table 14: Ratification requirements and signing of financing agreements

	Share of projects with ratification requirements (%)	Share of financing agreements signed face-to-face (since 2009) (%)
IFAD	37	77
APR	7	84
ESA	25	89
LAC	46	46
NEN	63	74
WCA	51	84

Source: Analysis of 577 IFAD financing agreements and related internal data for signing dates.

Table 15: Type of conditions for first withdrawals in IFAD's financing agreements (since 2009)

	Project management unit (share of projects with said condition) (%)	Nomination of project director (share of projects with said condition) (%)	Project implementation manual (share of projects with said condition) (%)
IFAD	55	48	63
APR	68	59	64
ESA	46	32	46
LAC	60	42	86
NEN	37	40	46
WCA	62	62	73

Source: Analysis of IFAD financing agreements.

NEN where the majority of the projects are not requested to do so. The nomination of an acceptable project director is a common first disbursement condition in APR and WCA, but less common in other regions.

Another important set of IFAD-related variables relate to IFAD's country presence. The results in this study clearly prove that operational ICOs with CPOs are benefiting IFAD's disbursement performance during implementation and that ICOs headed by CPMs have a positive impact on both disbursement readiness and fuller use of loan proceeds. On average, disbursement rates at financial closure are 24 percentage points higher if there has been an outposted CPM during (most of) the project's lifetime (see Table 16). This supports the hypothesis that CPMs are of particular importance for enhanced direct engagement with national governments and PMUs, while CPOs strengthen IFAD's capacity to provide effective implementation support that helps projects to better manage their disbursements on a year-on-year basis. Finally, direct supervision by IFAD has significantly contributed to higher disbursement rates at financial closure. Nowadays a common feature, it was gradually mainstreamed into IFAD's portfolio and has had a positive effect on increased disbursement rates for projects.

Table 16: The importance of IFAD-related variables for disbursement performance: results

Variables	Disbursement readiness		Disbursement effectiveness	
	Time to first disbursement	Time to second disbursement	Disbursement rates during life	Disbursement rates at closure
Operational ICO (If yes, then...)	Slower*	Slower*** (a)	Higher** (+4.6%)	Lower* (-9%)
ICO is headed by CPM (If yes, then ...)	Quicker** (a) (-62 days)	Quicker*** (a) (-9 days)	ns	Higher*** (+24%)
Project was directly supervised (If yes, then ...)	-	-	ns	Higher*** (+16%)

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

(a) Level only significant in one of the two statistical models.

Country programme manager-related variables

IFAD's CPMs play an essential role for the design and supervision of IFAD-financed investment projects. This study shows that disbursement readiness is much more under the CPM's control than often recognized. Turnover, experience and workload of CPMs are all factors that have a statistically significant effect on the timeliness of first and second disbursements. None of these factors, however, has a statistically significant effect on disbursement rates (see Table 17).

A change in CPM responsibility during the start-up phase has a particularly negative effect on disbursement readiness. If the CPM who designed the project leaves and another CPM takes over, projects disburse, on average, 160 days later than projects with the same CPM. The mechanisms behind this finding could be many. Most likely, there is a lack of knowledge-sharing between the new and the old CPMs on country specificities and budget cycles, as well as a disruption of contact and communication channels with the PMU and the government. It could also be that the incentives for ensuring a quick start-up are insufficient, and that new CPMs tend to focus more on the delivery of new projects to the Executive Board to satisfy IFAD's lending targets.

The study also shows that CPM experience and workload matter. The more experienced CPMs tend to have projects that disburse quicker, while the ones who have too much work to carry tend to have projects that have slower first and second disbursements. As the statistical analysis reveals that CPMs with many years of IFAD experience tend to have a higher workload of projects that they need to manage, the positive effect of having experience is almost entirely equalled out by the negative effect of having too much workload.

Finally, the study finds that women CPMs tend to have quicker disbursing projects than men CPMs. While not significant for the entire process, women CPMs have a statistically positive effect during the phase from approval to entry into force (i.e. during the engagement phase with the respective governments) and from the first to second disbursement. Of note is the fact that, at the end of 2015, only 25 per cent of P4 and P5 CPMs in IFAD were women.

Table 17: The importance of CPM-related variables for disbursement performance: results

Variables	Disbursement readiness		Disbursement effectiveness	
	Time to first disbursement	Time to second disbursement	Disbursement rates during life	Disbursement rates at closure
CPM turnover (If the CPM who designed the project is also in charge during start-up, then ...)	Quicker*** (-160 days)	Quicker* (a) (-146 days)	ns	ns
CPM experience (The more years of IFAD experience the CPM has, the ...) ^(b)	Quicker*** (a)	Quicker***	ns	ns
CPM workload (The higher the volume of the portfolio for which the CPM has responsibility, the ...)	Slower** (a)	Slower* (a)	ns	ns
CPM gender (If the CPM is a woman, then...)	ns (Quicker for approval to entry into force**)	ns (Quicker from first to second disbursement**)	ns	ns

Notes: ns = not significant; coefficients in brackets are only shown if easy to interpret.

Estimated p-values of statistics: *** p < 0.01 (meaning a 99 per cent probability that the result is different from 0); ** p < 0.05; * p < 0.1.

(a) Level only significant in one of the two statistical models.

(b) Due to collinearity of variables, CPM experience was measured differently in the disbursement readiness analysis, using the proxy "number of project designs, top-up designs and directly supervised projects".

Concluding remarks

This study represents the first in-depth investigation into the trends and drivers of IFAD's disbursement performance, and is also the most extensive study of this area conducted for any IFI. In assessing the effect of multiple country-, project-, IFAD- and CPM-related factors on a comprehensive range of disbursement effectiveness indicators and using a dataset covering 577 projects implemented over a 20-year period, the study provides a number of important insights to inform decisions on how to shape disbursement expectations and measurement. It also includes a generalizable set of hypotheses and indicators that can be used and tested by other IFIs.

In terms of assessing the trends in IFAD's disbursement performance over the past 20 years, the analysis highlights the need for improvement. The analysis finds that the time between approval and first disbursement improved only slightly from 21 months in 1999 to 17.6 months in 2015, while IFAD-supported projects disburse, on average, 84.4 per cent of their approved budget, albeit with significant differences across countries and regions. For disbursement rates on a year-by-year basis, the trend analysis finds that projects are generally slow in disbursing funds, only reaching a rate of 33 per cent at the halfway point of their originally planned implementation schedule, and not more than 71 per cent at the originally planned completion date.

The study identified delays in initial project implementation as a key aspect of disbursement performance and so assessed the factors shaping delays before first and second project disbursements. Firstly, the survival model analysis finds that a negative performance on IFAD's disbursement readiness is most significantly influenced by the following external factors: high fragility and income status of a country, low absorption capacity of official development assistance to agriculture, constrained fiscal space, concurrent elections, and extreme weather events and epidemics. Factors that are partly or fully under IFAD's control and which can enhance disbursement readiness include: higher IFAD project financing (ideally around US\$32 million per project), insistence on the setting up of a PMU in the financing agreement, more outposted and more women CPMs, better-managed turnover of CPMs, enhanced CPM experience, and less workload for CPMs.

In addition to initial delays, the study also recognized the importance of the schedule of disbursements across project life. Through the generalized least squares regression analysis, a mixture of country- and project-level variables were found to have a significant effect on this indicator. Regarding country-level factors, state fragility and high income status were found to have an effect, both exerting a negative influence. While at the project level, the analysis found year-on-year disbursements to be improved by having reasonable amounts of cofinancing and reliance on local staff (CPOs) in ICOs for enhanced implementation support. Finally, an OLS regression analysis assessed factors that affect a project's ability to disburse all of its approved budget by financial closure, perhaps the most important disbursement performance indicator. The analysis finds that, regardless of year-on-year variations during implementation, financial closure disbursement rates are higher if the following external factors are fulfilled: high share of grant (and not loan) financing, small state status, less-frequent election cycles, stable local currencies and frequent occurrence of extreme weather events and droughts. At the same time, IFAD can also influence higher use of loan proceeds through CPM-headed ICOs and direct supervision efforts.

These insights have a number of implications for how disbursement performance of IFAD and other IFIs can be improved and its measurement better informed. Clearly, the most important findings in this regard relate to the internal factors over which the funding organization has the most control. Perhaps the strongest message given its support from previous studies on disbursement performance in the African Development Bank and the Inter-American Development Bank (see Gohou and Soumaré, 2009; Nkamleu et al., 2011; Álvarez et al., 2012) is that larger projects perform better, especially in terms of disbursement readiness. In the same way, careful consideration should be given to how financiers share costs, as relationships in which one cofinancier shares a much higher burden than others might lead to disbursement problems of all involved parties if the most important cofinancier is not performing.

Further controllable factors include the role of project managers, as also shown by Álvarez et al. (2012). In finding various characteristics of IFAD's CPMs to have an influence on performance including gender, experience, workload, their being located in the recipient country, and the amount of CPM turnover, the results highlight that investments to capitalize on this knowledge of their favourable characteristics are likely to be converted into disbursement performance improvement. In addition, the results for disbursement readiness show that a further powerful tool in shaping disbursement performance are the financing agreement conditions, and hence these should be carefully considered to ensure a process that provides more streamlined proper project preparation.

Although less controllable, the findings relating to country-level factors also have implications for future decisions and policy. Primarily, in finding that disbursement performance is hindered by factors such as state fragility, fiscal space and exchange rates, IFIs should adjust their disbursement performance expectations accordingly, so that when these hindrances occur it does not come as a surprise and does not have as much of a debilitating effect on project implementation and impact.

A final note to make on this study is on its direct implications for IFAD. In order to swiftly address the criticalities evidenced by the study, IFAD management approved a corporate action plan aimed at better projecting, measuring, monitoring and managing IFAD's disbursements. All actions have a specific timeline, as well as clear responsibilities and measures of success. A corporate workshop held in early 2017 further raised awareness across all responsible staff about the importance of disbursement performance to demonstrate efficient use of Member States' contributions and to ensure that IFAD clients, and more importantly target beneficiaries, receive adequate support.

Measures to enhance IFAD's disbursement performance will include revisiting policies (e.g. cancellation policy, restructuring policy) and a review of current products, processes and procedures. Critical attention will need to be given to ex ante disbursement forecasts and the disbursement dimension of projects, aiming for a balance of project types within each country portfolio. Furthermore, IFAD will increase its support to borrowers for implementation readiness through more targeted use of start-up advances and an increased focus on procurement issues in project design.

Annex 1: Explanatory factors of IFAD's disbursement performance

Table 1A presents all indicators at country-, project-, IFAD- and CPM-level that were used for the quantitative analysis. External sources are hyperlinked. Whether the indicators were included in the final analysis is shown in the last two columns, together with the reason why some of them had to be excluded.

Table 1A: Potential explanatory factors of IFAD's disbursement performance

Indicator (hyperlinked source or other)	Data availability (1995-2014)	Inclusion in final analysis	
		Disbursement readiness	Disbursement effectiveness
Country-related variables			
Country classification			
State Fragility Index (SFI)	Full period	X	X
GNI per capita	Full period	X	Excluded, inversely collinear with SFI
Financing terms (here: ratio of grant and concessional loan financing against other loan financing)	Full period	Already captured through GNI	X
Small State (World Bank classification, yes/no)	Full period	Excluded, collinear with other variables	X
Socio-economic and political variables			
ODA to agriculture, rural development and other food-security-related sectors (commitments, as per OECD in constant 2014 USD prices); own computation	Full period	X	X
IMF exchange rates (SDR against USD and SDR against local currency)	Full period	X	Not relevant
National Inflation Index (IMF)	Full period	X	Not relevant
Presidential or parliamentary elections in current year (yes/no)	Full period	X	X
Worldwide Governance Indicators, WGI (here: Government Effectiveness)	Full period	Excluded, collinear with SFI	
Corruption Index (Transparency International)	Full period	Excluded, collinear with WGI	
General government revenue (% GDP)	Full period	X	Excluded due to collinearity
Current account balance (% GDP)	Full period	X	X
Natural and human disasters			
Number of extreme weather events in a given year	Full period	X	X
Number of epidemics in a given year	Full period	X	Excluded due to collinearity
Number of incidents of drought in a given year	Full period	Excluded due to collinearity	X
Number of incidents of agricultural disasters in a given year	Full period	Excluded due to collinearity	X

Indicator (hyperlinked source or other)	Data availability (1995-2014)	Inclusion in final analysis	
		Disbursement readiness	Disbursement effectiveness
Project-related variables			
Project management			
Quality of project management (PM) (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded due to fact that self-assessment might be a reflection of disbursement performance
Performance of monitoring and evaluation (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Coherence between the Annual Work Plan and Budget and implementation (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded collinear with PM rating
Quality of beneficiary participation (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Responsiveness of service providers (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Overall implementation progress (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Fiduciary aspects			
Quality of financial management (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Compliance with financing covenants (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Quality and timeliness of audits (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Compliance with procurement (1-6 rating, PSR online)	Since 2003	Not applicable	Excluded, collinear with PM rating
Cofinancing			
Counterpart funds (1-6 rating, IFAD's PSR online database)	Since 2003	Excluded, collinear with PM rating	Not applicable
Project cofinancing ratio (current amount)	Full period	Not applicable	X
Type of project and financing			
Approved amount of IFAD financing (US\$)	Full period	X	X
Approved allocation for works (in %)	Full period	Not relevant	X
Approved allocation for rural finance (in %)	Full period	Not relevant	X
Approved allocation for soft activities (e.g. training, in %)	Full period	Not relevant	X
First disbursement amount (as % of approved amount)	Full period	X	Not relevant
Use of start-up funds (yes/no)	Full period	X	Not relevant
Start-up advance amount (as % of approved amount)	Full period	X	Not relevant
IFAD-related variables			
Loan/grant conditions as per financing agreement			
Ratification of financing agreement required (yes/no); as extracted from IFAD financing agreements and/or project milestone data	Full period	X	Not relevant
Financing agreement was signed by correspondence (yes/no)	Full period	X	Not applicable
Project implementation manual required (yes/no)	Full period	X	Not applicable
Counterpart financing/deposit required (yes/no)	Full period	Excluded due to collinearity	Not applicable

Indicator (hyperlinked source or other)	Data availability (1995-2014)	Inclusion in final analysis	
		Disbursement readiness	Disbursement effectiveness
PMU required (yes/no)	Full period	X	Not applicable
Project director required (yes/no)	Full period	X	Not applicable
Number of accounts required	Full period	X	Not applicable
Effectiveness conditions (yes/no)	Full period	Excluded due to collinearity	Not applicable
First disbursement conditions (yes/no)	Full period	Excluded due to collinearity	Not applicable
Number of conditions	Full period	X	Not applicable
Supervision and implementation support			
Direct supervision (yes/no, PSR online)	Since 2003	Not applicable	X
ICO presence			
IFAD has an operational ICO in the country (yes/no)	Full period	X	X
ICO is headed by CPM (yes/no)	Full period	Excluded, not enough data/variance	
CPM-related variables			
CPM experience			
Years of IFAD experience of CPM (cumulative)	Full period	X	X
Number of project designs, top-up designs and directly supervised projects by CPM	Full period	X	X
CPM workload			
Volume of current portfolio for which CPM has responsibility	Full period	X	X
CPM turnover			
CPM who designed the project is also supervising it (yes/no)	Full period	X	Not applicable
Number of CPMs that have managed the project over its lifetime	Full period	Not applicable	X
Other CPM characteristics			
Gender of CPM (man/woman)	Since 2002	X	X

References

- Ahsan, K., and I. Gunawan. 2010. Analysis of cost and schedule performance of international development projects. *International Journal of Project Management*, 28: 68-78.
- Álvarez, C., J. Bueso-Merriam, and R. Stucchi. 2012. *So you think you know what drives disbursements at the IDB? Think, think again...* Inter-American Development Bank Technical Note No. IDB-TN-479.
- Cameron, A.C., and P.K. Trivedi. 2005. *Microeconomics: Methods and applications*. Cambridge: Cambridge University Press.
- Denizer, C., D. Kaufmann, and A. Kraay. 2013. Good countries or good projects? Macro and micro correlates of World Bank project performance. *Journal of Development Economics*, 105: 288-302.
- Dollar, D., and V. Levin. 2005. *Sowing and reaping: Institutional quality and project outcomes in developing countries*. World Bank Policy Research Working Paper No. 3524.
- Gohou, G., and I. Soumaré. 2009. *The impact of project cost on aid disbursement delay: The case of the African Development Bank* [Online]. Available at: www.afdb.org/fileadmin/uploads/afdb/Documents/Knowledge/2009%20AEC-%20The%20Impact%20of%20Project%20Cost%20on%20Aid%20Disbursement%20Delay%20The%20Case%20of%20the%20African%20Development%20Bank.pdf.
- Kersting, E.K., and C. Kilby. 2015. With a little help from my friends: Global electioneering and World Bank lending. *Journal of Development Economics*, 121: 153-165.
- Kilby, C. 2011. *The political economy of project preparation: An empirical analysis of World Bank projects*. Villanova School of Business Economics Working Paper No. 14.
- Kurata, H., and T. Kariya. 2004. *Generalized least squares*. London: John Wiley & Sons Ltd.
- Legovini, A., V. Di Maro, and C. Piza. 2015. *Impact evaluation helps deliver development projects*. Policy Research Working Paper No. 7157. Washington, D.C.: World Bank Group. Available at: <http://documents.worldbank.org/curated/en/676351468320935363/Impact-evaluation-helps-deliver-development-projects>.
- Long, J.S. 1997. Regression models for categorical and limited dependent variables. *Advanced Quantitative Techniques in the Social Sciences*, 7.
- Miller, Jr., R. G., 2011. *Survival Analysis*, 2nd Edition, New York: John Wiley & Sons.
- Mishra, P.K. 2016. Managing international development projects: Case studies of implementation of large-scale projects in India. *International Journal of Rural Management*, 12(1): 4-26.

Nkamleu, G.B., I. Tourino, and J. Edwin. 2011. *Always late: Measures and determinants of disbursement delays at the African Development Bank*. African Development Bank Working Paper No. 141.

OECD, 2016. *Chapter 2: Using the fiscal levers to escape the low growth gap*, OECD Economic Outlook, Volume 2016, Issue 2.

Sunjka, B.P., and U. Jacob. 2013. Significant causes and effects of project delays in the Niger Delta region, Nigeria. *Southern African Institute of Industrial Engineering*, 2013.

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