

Sri Lanka's New Fertilizer Cash Grant (FCG) Scheme for paddy

What do participants and associates look and hope for?

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Background of the study

Since independence, the Government of Sri Lanka has implemented various policies and initiatives to boost agricultural production. One of the enduring, costly, and politically sensitive measures aimed at promoting paddy farming has been the fertilizer subsidy program which was initiated in 1962 and continued for over six decades. Since then, the subsidy policy has undergone many changes, including the introduction of the Fertilizer Cash Grant (FCG) Program in 2016. The FCG program's key objectives were to reduce the excessive use of synthetic fertilizers, promote the adoption of organic fertilizers, and empower farmers to make informed decisions regarding the use of fertilizers in appropriate quantities in their fields post soil testing. The FCG program commenced in 2016 but it lasted only for four seasons and price subsidy was reintroduced.

In 2023, the Government of Sri Lanka again decided to provide a FCG to small scale paddy farmers for up to a maximum of LKR 30,000 (\$92) per hectare(ha) per year. Under this initiative, farmers engaged in paddy farming in Maha season-2023 will receive a maximum allowance of LKR 15,000 per ha of cultivated land. This financial assistance would be directly credited to their accounts. According to Agrarian Services Department (2023), about 1.2 million farming families are qualified to receive this benefit.

With the announced FCG 2023, the main objective of this study is to assess the likely behavioral response of smallholder paddy farmers. Specific objectives comprise:

- ▶ Identifying the perception of stakeholders on the likely response of farmers to FCG.
- ▶ Identifying the types of farmers who may use FCG for intended purposes.
- ▶ Identifying whether environmental benefits can be accrued with FCG owing to lesser application of chemical fertilizers.
- ▶ Identifying complementary policies and programs needed for greater effectiveness of FCG.

The basic principle underlying utility maximization subject to constraints is based on current resources, debts, and financial goals, preferences and individual specific tradeoffs by farmers which determine the choices and outcomes. As preferences and initial budgets differ across individual farmers, there are likely heterogeneous responses to FCG even when amounts and the nature of grants were identical across potential recipients. Individuals may also differ in terms of time preferences where those discounting the future to a greater degree could front load the usage of funds towards the present over the future.

Assuming fungibility and no effective earmarking, rational actors may evaluate various options for using FCG comprising:

- Investing in agricultural inputs, livestock, or small businesses.
- Paying off or reducing existing debts.
- Consumption and immediate needs: Some may decide to allocate FCG for immediate consumption, like food, healthcare, or education expenses.

These allocative choices would be determined based on risk assessment, time preference and network influence. To explain the likely behavior of paddy farmers after receiving FCG, the following hypotheses are relevant.

- ▷ Hypothesis 1: Allocation of FCG is based on myopic preferences - Paddy farmers who receive FCG will allocate the money based solely on immediate consumption needs.
- ▷ Hypothesis 2: FCG will not significantly affect inequality among paddy farmers.
- ▷ Hypothesis 3: FCG will not lead to significant changes in resource allocation within paddy farming families.

Study Design

This study collected qualitative data from stakeholders involved in FCG. In-person interviews were used to collect information from both farmers and Agriculture Research and Promotion Assistants (ARPAs). Anuradhapura district was selected for the study as it is a major rice growing district in the dry zone of Sri Lanka.

The instruments and schedules were developed based on a review of literature and feedback from a panel of experts on cash grant programs and agricultural economists. The interview guide included both open-ended questions about perspectives of smallholder farmers and ARPAs regarding the proposed FCG.

The interview included questions such as:

- ▷ What do you think of the potential benefits of FCG?
- ▷ Do you think the farmers would utilize the FCG solely for paddy cultivation?
- ▷ Approximately, what fraction of farmers would use FCG for agricultural purposes?
- ▷ What are the potential barriers for effectiveness of FCG?
- ▷ Subjectively assessed, what would be the modifications to improve the FCG?

Population and Sampling

The study randomly selected paddy farmers in the dry zone of Sri Lanka. According to the Agrarian Services Department, there are 38 paddy farmer organizations registered in Anuradhapura district that were employed to identify respondents. In qualitative research there are no specific power calculations determining minimum sample size, and the number of participants is determined by the purpose of research, the type of data collected, point of data saturation, and available resources. 30 paddy farmers, and office bearers of farmer organizations were selected to gather perspectives on the likely responses to FCG. To capture the view of the field officers of the Agrarian Services Department, five ARPAs were also interviewed.

Data Collection and Analysis

Semi-structured interviews were used to allow participants to add more information relevant to the context, but not included in the interview guide. Interviews, which were conducted in October 2023, were audio recorded and supplemented with researchers' notes, post which the data was transcribed. During the initial analysis, the researchers used line-by-line open coding to assign data to categories. Subsequent analysis helped assign the categories to themes corresponding to the theoretical constructs.

Credibility, dependability, confirmability, and transferability were used to measure trustworthiness. Credibility was established through member checking and triangulation; audio records and notes taken by the researcher were used to triangulate data. Transferability was established through a thick description, "building a clear picture of the individuals and groups in the context of their culture and the setting in which they live." Confirmability ensures that the findings of the researcher could also be established by another researcher who conducted the same study. Throughout this study, the researcher maintained a journal to document details of each visit to individual farmers. Audio records of each interview were reviewed for clarity and the transcriptions were checked to ensure accuracy.

Background of the sample

All respondents hold specific positions within a farmer organization, association, or cooperative. These positions included chairperson, secretary, treasurer, or other leadership roles. The office bearers were purposively selected, expected to have a good understanding of the responses of members. All respondents were male, paddy farmers. The size of the farmer organizations considered varied as listed below.

Size of farmer organization	Percentage
Less than 50 members	18%
51-100 members	54%
More than 100 members	28%

Results

Awareness about the proposed FCG

Importantly, none among the ARPAs were adequately informed about the proposed FCG. This is significant since ARPAs are expected to provide details regarding the planned paddy cultivation for Maha 2023 season, including its acreage. ARPA1 expressed lack of knowledge about the program, stating, “We were instructed to gather data on cultivated lands, but did not receive any information. There remains uncertainty whether vouchers would be issued, fertilizer would be supplied, or how and when the monetary grants would be disbursed. This sparked curiosity among farmers, leading to unrest during *kanna* meetings when the fertilizer issue was raised.

Similarly, paddy farmers in various farmer organizations were unaware of proposed FCG. The little knowledge they had was from unofficial sources such as television, newspapers, and fellow farmers. Notably, no official communication had been made available to the farmer organizations.

Perception about the proposed FCG

Both ARPAs and most farmers hold a negative outlook towards the proposed FCG. The primary reason for such a stance is based on previous experiences with various subsidy and cash grant programs that have been characterized by lack of timeliness of stipulated cash disbursement, inadequate amount of money proposed, corruption and malpractices, and a lack of trust towards government officials.

Timing – Most farmers questioned the time schedule of FCG. Land preparation for the upcoming season had already started and most of the farmers had completed sowing. Yet none of the farmers had received the cash grant. Most farmers emphasized that “the most crucial aspect is not just whether we receive the cash grant or not, but when we receive it.” Many respondents expressed frustration due to delays, which resulted in the untimely application of fertilizer and other management practices which subsequently affected yields. Farmer 30 expressed that “it has been like this throughout the previous programs; when you are required to apply fertilizer during land preparation, there’s no use of giving money during harvesting time.” Farmer 27 mentioned that “if they cannot give it on time, do not promise to give it”.

Amount of cash grant – Many farmers expressed their dissatisfaction with the grant amount, deeming it insufficient to cover the costs of essential fertilizers and other operations. Paddy cultivation, like any other crop, requires several inputs comprising seeds, fertilizers (such as urea, TSP, and MOP), pesticides, labor, water, and machinery. Farmers must also account for land preparation and maintenance costs. Over time, the prices of these inputs have risen significantly and have also fluctuated widely, particularly the cost of fertilizers, the main pivot for cash grant scheme. FCG is not inflation indexed thereby making it largely ineffective.

Most of the interviewed farmers are smallholders, operating less than 3 ha of paddy land, and even for this small land size, the farmers opined that the proposed grant of LKR 15000/ha falls significantly short of meeting fertilizer and other cultivation needs. The farmers pointed out that purchasing a single bag of Urea can cost approximately LKR 9,500 per 50 kilogram (kg) bag. Paddy cultivation requires specific types of fertilizers, including urea, TSP (Triple Super Phosphate), and MOP (Muriate of Potash). According to respondent 33, “it costs LKR 2500 per day for labor”.

Prior experience with subsidy programs - Farmers harbor skepticism towards the proposed FCG that is rooted in their prior experiences with subsidy programs and cash grant initiatives. These past experiences have not been entirely positive and do not seem to be credibly addressed in the proposed FCG. Notably, some entitled farmers did not receive the benefits. As a result of these past experiences, farmers question whether this new initiative would be any different. The farmers earlier faced considerable challenges with the voucher and fertilizer distribution systems and with the ease and timing of the cash receipts.

This skepticism is thus mainly fueled by ineffective implementation and lack of accountability in the past. Both ARPAs and farmers expressed uncertainty about whether the cash grant would reach the right paddy farmers. ARPA2 raised the point that "data itself on paddy farmers were collected during land preparation, so there is no guarantee that all those who prepared land would actually cultivate paddy." Furthermore, some farmers who had abandoned farming midway in previous seasons had still received vouchers, highlighting the absence of an effective monitoring mechanism leading to targeting errors.

Experience with government officers - The negative perception can also be attributed to the farmers' experiences with government officers, specifically ARPAs and other officials. This includes issues related to the distribution of benefits, such as subsidies, vouchers, or grants, as well as the overall management. Another key concern is the lack of accountability among government officers. Farmers have reported difficulties in holding these officers responsible for any shortcomings or issues faced during the implementation of agricultural programs.

Most farmers expressed a preference for access to reasonably priced fertilizers over cash grants or subsidies. Having fertilizers available at reasonable prices helps farmers plan and manage their cultivation without depending on cash grants or subsidies. Respondent 14 stated that "we do not need anything from anyone. Just make fertilizer available at reasonable prices everywhere. Having to pay around 10,000 LKR for one Urea bag is outlandish. If the government can regulate the price and make it affordable and accessible at reasonable prices, we could purchase directly."

What Fraction of Farmers would likely use FCG for paddy cultivation?

The opinions about utilization of FCG for paddy cultivation reflect inter alia the bearings of the ongoing economic crisis. As the motivation for utilizing FCG for paddy cultivation reflect their need to balance immediate economic challenges, concerns about cultivation costs, and the unpredictability of agricultural outcomes, the ongoing economic crisis amplifies the complexity of these choices.

Commercial vs. Subsistence Farmers - According to the respondents, commercial farmers are more likely to invest the grant in their farming activities, viewing it as an opportunity to enhance their agricultural production, by purchasing essential inputs like seeds, fertilizers, or pesticides.

In contrast, subsistence farmers rely on agriculture primarily to meet their family's food and basic needs. While they also sell some produce, their primary goal is to ensure their household's sustenance. These farmers may be more inclined to prioritize their immediate needs (health care and education) and allocate the funds accordingly.

Farmers with multiple income vs. Farmers with limited income streams - Some farmers interviewed have diverse income sources, including non-agricultural activities or other investments. For these farmers, paddy cultivation is just one part of their income stream.

Furthermore, most ARPAs also hold the belief that farmers would not allocate FCG to paddy cultivation. ARPA1 remarked, "Given the ongoing economic crisis, I am fairly certain that farmers will utilize this for personal consumption. We have encountered similar situations before." Both ARPAs and officials from farmer organizations are confident that most farmers will divert FCG toward household consumption except those with alternative sources of income and no significant economic hardships. ARPA1 commented, "Impoverished farmers facing difficulties at home will undoubtedly utilize this grant for other needs." According to the experiences recounted by ARPA5, farmers may also use the money for alcohol and other non-agricultural purposes. ARPA5 noted, "We have previously witnessed farmers engaging in celebratory events when cash grants were provided. Therefore, I doubt this grant will effectively boost paddy production."

The observation that most respondents believe farmers would not give up on farming reflects the resilience of agricultural communities. Farmers have often faced financial constraints and uncertainties. As a result, they have developed a capacity for adaptation and resourcefulness. When the respondents were asked about their future move in absence of the cash grant, respondent 15 stated, "they have never kept their promises on grants or subsidies. But we do not give up on farming. When we do not have money, we do not abandon our lands. We mortgage our properties or pawn our jewelry to cover the expenses."

Environmental Benefits Associated with FCG

Neither the ARPAs nor the farmers who participated in this study believed that the cash grant would lead to environmental benefits. While both groups anticipated that most farmers would divert the cash grant towards other purposes, they also did not expect farmers to use the money to purchase organic fertilizer. The adoption of organic fertilizer has been challenging for farmers due to its limited availability, transportation difficulties, and production challenges with yield penalties. Farmer 6 explained, "My paddy farm is located far from my home, and we lack sufficient land to produce organic fertilizer on-site. The cost of transporting it from home would amount to several thousand rupees, so I would not be using organic manure this time." ARPA2 also noted the absence of "a suitable source for purchasing organic fertilizers" in the region, as many producers have shifted away from organic practices.

Conclusions

Based on the information and insights gathered, some key conclusions that can be drawn are:

- ▶ **Mixed Perceptions and Attitudes:** Farmers' perceptions and attitudes toward FCG are diverse. While some see it as a potential boost to their farming, a large fraction is skeptical due to negative experiences with previous subsidy programs and lack of trust in government agencies.
- ▶ **Economic Crisis Impact:** The ongoing economic crisis has influenced farmers' perceptions regarding FCG. Many believe that due to economic difficulties, small farmers may use the funds for immediate consumption needs rather than for farming. The application to agriculture over immediate consumption varies depending on the economic status of the farmer.
- ▶ **Lack of Trust in Government Agencies:** Negative experiences with previous programs and a lack of trust in government agencies have affected farmers' attitudes toward FCG.

- ▶ **Importance of Timing and Distribution:** Farmers stressed the need for timeliness of delivery of funds and efficient monitoring mechanisms to ensure that FCG reaches the intended beneficiaries.
- ▶ **Desire for Accessible Fertilizers:** A common preference among farmers is for accessible and affordable fertilizer supplies over FCG. This indicates that availability and accessibility of fertilizers might be the primal issue.
- ▶ **Awareness and Training Needs:** Farmers expressed the need for better knowledge and access to resources, including training and support services.

In summary, the success of FCG is contingent on addressing multifaceted challenges. Policymakers and program implementers should consider the economic status of farmers, the availability of agricultural inputs, and the trustworthiness of government agencies to tailor the program effectively. Additionally, developing timely and efficient distribution systems, promoting awareness, and training, are essential for the program's success.

Suggestions for improvements

The findings of this study underscore the significance of acknowledging and rectifying the issues faced by farmers in previous subsidy and cash grant programs. It also highlights the importance of creating a more transparent, efficient, and reliable system to regain the trust of the farming community for the proposed FCG.

Desire for Improved Governance: Considering their past experiences, farmers are looking for improved governance and more efficient management of agricultural programs. They desire greater transparency, accountability, and reliability from government officers implementing and managing these programs.

Rebuilding Trust and Confidence - Rebuilding the trust and confidence of farmers in the government officers is essential. Achieving this requires addressing the shortcomings of past programs, enhancing transparency in implementation, and ensuring that the officers involved are held accountable for their actions.

- ▷ **Transparent and Timely Disbursement:** Ensuring that the cash grants are distributed transparently and in a timely manner has been an important concern. Farmers' negative perceptions are often linked to issues with previous subsidy programs. Addressing these concerns through efficient delivery mechanisms is crucial.
- ▷ **Targeting Mechanism:** Implement a robust targeting mechanism to identify and verify eligible beneficiaries accurately. This can help alleviate concerns among farmers about deserving recipients being screened out.
- ▷ **Diversify Support:** Rather than providing a fixed cash grant, consider diversifying the support to include agricultural inputs like seeds, fertilizers, or machinery. This ensures that the assistance directly contributes to the cultivation process and is responsive to farmer heterogeneity.
- ▷ **Farmers' Training:** Develop programs to educate farmers about the proper use of the grant, the benefits of investing in agricultural inputs, and modern farming practices. This can enhance the impact of the cash grant on crop productivity.

- ▶ **Feedback and Monitoring:** Establish a feedback system where farmers can report any issues with the program. Implement strong monitoring mechanisms to track the use of the cash grants and ensure they are used for intended purposes.
- ▶ **Community Engagement:** Engage local community leaders and organizations in program implementation. Their support and involvement can help build trust and ensure effective delivery.
- ▶ **Long-Term Perspective:** Consider offering support beyond a single season. Long-term programs can have a more sustainable impact on farmers' practices and overall agricultural productivity.
- ▶ **Awareness Campaigns:** Conduct awareness campaigns to inform farmers about the benefits and objectives of FCG. Address their doubts and misconceptions through clear communication.
- ▶ **Legal Framework:** Ensure that the program complies with relevant legal and regulatory frameworks, including environmental and social safeguards.

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