



## Agriculture Sector Council Seminar

# Voucher Schemes for Enhanced Fertilizer Use: Lessons Learned and Policy Implications

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Q and A Transcript

### **Presenters**

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*Gregory:* Obviously, the answer to this is going to vary from region to region, country to country. If at market prices and at the yield levels which can be obtained, even on a smallest areas, farmers cannot make a viable living or feed themselves, then there is no point in providing this sort of administratively expensive program. One has to provide some sort social welfare by a more efficient method. If there are circumstances where let's say a farmer with somewhere between two and five hectares are growing maybe one hectare of staple cereal crops; even at market prices if he could afford to buy the input, he can produce enough food for the family. This is a viable situation in the long term or a program which can enable him to enter into the market and where he is able to afford to buy inputs and use them and he is shown how to use them, then I believe that that is a sustainable situation. Has David got any comments on that?

*Zachary:* Can you repeat the question? Sorry.

*Male:* Yeah, this is then, for David. Just how poor of a farm family can benefit from subsidies with the voucher scheme? Really, how poor and what's the breakpoint in terms of just being too poor?

*Rohrbach:* I think in the first instance, as households who are net deficit households. This large proportions of households, particularly as you get into relatively poor agricultologies which cannot produce enough to meet their annual consumption requirements. So there's a quick breaking point to say if we can get them the extra bag of grain, there's a huge payoff to doing it and it's probably cheaper to do it. By giving them fertilizer and helping them to produce it than to provide them food aid. So there's a quick solution that. Second solution is, depending upon the objectives of your program, those who cannot afford – are not using fertilizer at all, there's a mixture of those who may be able to afford it but are not interested in it for one reason or another, need the experience, and those who do, are aware of it but cannot afford it because simply, it's not available anywhere near them and I think part of the objectives of these programs is to get it nearer to households to build supply chains and encourage farmers to at least buy half a bag, one bag and build up their use over time.

*Baquet:* We have a question from online.

*Female:* This is a question from Zelalem Kibre, who works at the Ethiopian Agricultural Transformation Agency, who asks, "Regarding village leadership selection to target vouchers, doesn't it provide a rent seeking opportunity?"

*Gregory:* If I may make a comment to this –

*Male:* Go ahead.

*Gregory:* - yes it does and what we've found with the SPLIFA program in Malawi is that you make the village councils aware of the fact that they will be held responsible for the practices, rent seeking in terms of voucher distribution in nominating the deserving farmers. But you have to have some sort of penalty to make it obvious to them that they're going to have to be fair about this. David has probably got, again, more comment on this.

*Baquet:* David, do you have more to add?

*Rohrbach:* Well, very briefly, we see it as a commonly stated issues. I've seen one research study which shows that it exists. We have some evidence in Malawi that was extremely mixed. It depended upon the inclination of the village leader. In a few cases, village leaders took vouchers and concentrated in their families and friends but those were relatively unusual cases. In most cases, there was the perception of fairness and there was a perception that these, really, were designated for the poor and logically so. What we find in Tanzania is that tends to be more often the case than not. But in order to help assure that, as Ian says, looking it up to the village assembly, make it as transparent a process as you can, list the names of the recipients on village bulletin boards, announce them, put in third-party monitoring in order to help diagnose constraints as they arise or questions as they arise. So yes, there's a mixed experience. I think it's sometimes overestimated how difficult that is.

*Male:* Hello. My name is Bob Hine. I'm with Deloitte and my question goes to kind of the heart of the matter here, which is sustainability and how you get the lowest farmer or the poorest farmer to sustainably use fertilizer in of value/cost ratio attractive basis. And apparently, from what we've seen here today, that's a very difficult goal to achieve, probably unachievable in most cases, and so my question goes to are there examples, either with crops or with size hectares, being farmed by in quotes, commercial farmers, that are in the 5, 10, 15 hectare area that have proven to be sustainable because, without subsidy, that could give us some insights into how this could work for the smaller ones in the future.

*Male:* That's a very good question.

*Male:* Ian you want to go –

*Male:* Sorry, David, you make a comment, first.

*Rohrbach:*

Okay. Just briefly, I'll make three comments. One, you can perceive these as a social welfare program and then the question become is this the most efficient means to provide social welfare. I would guess that in an environment in which you are paying \$400.00 to \$600.00 a ton for food aid, there may be a very high payoff to, instead, trying to put it into these sorts of programs. Second, if you're targeting the poorest, I think it's a – to assume that there ever going to get to, at least in the near term, three, four bags of fertilizer per hectare is absurd. There's a lot of work that's been done on micro-dosing. I've seen some remarkable results with the application of as little as 25 KGs of ammonium nitrate. I've seen, you know, if I hadn't seen it, I wouldn't have believed it, across thousands of households and I think there's a lot to be done in terms of improving fertilizer use efficiency with things like micro-dosing, basin planting and so on, which is highly beneficial to the poorest households. The third issue is the transition really comes with linking farmers into markets and their two components, obviously took that input market development, but also product market development. There's little question that if farmers have a good place to sell their crop and are selling it remuneratively, they will invest. They will invest in the inputs and you do see increasing evidence of that throughout Africa.

*Gregory:*

Yeah, if I may just add to that, David, I think because we have got such a very dynamic situation at all times, particularly applying to the fertilizer sector, and for countries which are dependent on importing from the international market, and there is such instability in fertilizer prices because of the slow supply response to any changes in demand, that you're going to have a lot of variability in fertilizer prices and we're seeing over last three or four years. This makes it very difficult to predict if, when you add in commodity price variations, makes it very difficult to predict that farmers are going to be able to obtain a benefit cost ratio for the BCR of three to one over a period of time. What we can do is provide the opportunities for balance competitive market development to try to bring costs down; to make sure that the efficiency with which fertilizer is used is improved over time; and let's face it, current fertilizer use efficiency but cops is very, very low, indeed. And we have to do something in the industry to improve the efficiency of fertilizers. And that will happen over time because when looking at so much competition for energy uses that we have to make sure that we get greater than 40 percent use efficiency from nitrogen fertilizers. The holistic development of markets is more important, in my mind, than to make an objective ensuring that the very smallest farmers can become viable. That may be more – unless you can get them to become self-sufficient for their own food needs, as David said, at very high import grain prices, then if you can do that it's a viable – that's the measure of viability.

*Male:*

Rob Bertram, Bureau for Food Security. Well first, thanks to both presenters for what I think were excellent but also very timely presentations. And the reason I say timely is many of us inside the agency but also, I hope, increasingly outside are aware that were putting a premium on this concept of sustainable intensification in our research approaches and hopefully, in our broader agricultural development investments and the issue of nutrients in these systems and hence fertilizers and organic matter – I'm glad that was mentioned as well -all of this is very, very important to us. I have two questions. One on entrance strategy and one on exit strategy. On the entrance strategy, I would be interested to hear either of the speakers or both say more about the pairing of fertilizer subsidies with improved seed at a subsidized as well. David mentioned it in terms of farmer preferences and all but in terms of the way in which we approach a more holistic program and how connected are these two vital types of inputs to a more successful outcome? In terms of exit strategy, I don't know if it was mentioned. I didn't hear it, I think, but there's some interest, I think, in index insurance for fertilizer. You know, we talk about crop insurance around index but there's – fertilizer insurance is somewhat simpler in some respects and would just be curious if there's been any thought about that and then finally, a plea going forward that we really do try to develop more of the economic data here that can help make the case. I liked very much the comment about food aid versus local production. Well, to the extent that we have data on these things, we're all in a better position to advocate for wise courses and hopefully once that take us in the direction of the real development outcomes were looking for.

*Gregory:*

I think it was said that seed were the catalyst of the green revolution and fertilizer was the fuel and water greased the process. That was, of course, the Nobel Prize winner that said that. I think it's fairly obvious that you have to – the fertilizer is plant nutrients are just one element in increasing crop productivity and you have to link them to improved seed and as David mentioned in his talk, it has to be improved seed that the farmers prefer rather than – and we made this mistake in the SPLIFA program – of insisting that farmers used hybrid seed which, in some regions of Malawi, was not entirely suited to the conditions. So again, empowerment of farmers to have say in the design of these programs.

I can give you an example, now from Kyrgyzstan last year where the government insisted that they wanted a voucher program, which was seed only, improved seed, from the national seed farms, so-called seed farms, in Kyrgyzstan. Our objections to that was they needed the fertilizer as well. In circumstances have been that was hardly any fertilizer available in Kyrgyzstan last year because of a ban on exports from Uzbekistan. So farmers were getting

supposedly higher quality seed from the seed farms. They weren't able to use fertilizer on it because they couldn't obtain it even if they wanted to. And the yields were still very disappointingly low, as one would expect.

As far as indexing insurance against fertilizer price volatility, I'm really not an expert on that field and I wouldn't like to make a comment. It's a possibility.

In terms of exit strategies, you could reduce the amount of subsidy per year over a three-year period but I can call back 50 years ago in Australia trying to get rid of fertilizer subsidies in a developed economy was one of the hardest things that was ever tackled and it applies even more so where you have got far many more things the provision of subsidies to the politicians than you have in developed economies.

Anyway, if I may make another comment – this was an idea that we had in Kyrgyzstan for a voucher program which provided crop production credit to farmers who were unable to get access to affordable credit. And to give them a voucher and the local village community committee had the last say in who got the voucher. The farmers were able to pick up their inputs from a list of inputs; fertilizers, seed, crop protection products, at designated dealers and then had to pay back after harvest. But the village committee would be made responsible that the farmers did pay back and the idea here was to offer them a sliding scale of the cash benefit to the village committee. This is bribery and corruption it's best. Give them a sliding scale, the higher the repayment from the villager – if it was below 80 percent repayment, the village committee got nothing. If it was 95 percent plus, they get something like about \$2,000.00 cash grant. Spend that on village development. Luckily, we haven't tried it but I'm just throwing it up as an idea which could possibly be tested in the future. But the idea of phasing out apart from reducing the amount of subsidy each year – you could also transfer it to a crop production credit program where the farmers have to pay back and I would just bring out that in Afghanistan and that emergency program once the farmers were given the fertilizer and hybrid wheat seed, on a voluntary basis they were supposed to contribute the value of that, either in wheat or in cash, back to the village surer for the village surer to spend or to monetize and then spend on village development and it wasn't enforced but most villages we got about a 40 percent of the farmers repaying the village surer because a lot of community pressure in this. And in some villages, it was as high as 80, 90 percent. So this involvement of the local village community is very, very important and using peer pressure to ensure that the conditions of the program are followed.

*Baquet:* David, do you have any \_\_\_\_\_ comments?

*Rohrbach:* Just very briefly if I might add. One of the greatest difficulties, Rob, we have with the seed choice, everybody agrees seed should be there but how do we get farmers the choice, the opportunity to choose? Generally, these programs either, if they're buying seed upfront, take the cheapest seed on tender. If they're not buying seed up front, the company has a captive market, sells what it wants to sell and we had great difficulty in Malawi and frankly, here as well, both helping farmers articulate their choices and making sure those choices were available to them in the retail shops because the system really works against that and that is a challenge for us going forward.

On fertilizer prices, I'm not sure whether you're talking about price hedging our true index insurance. True index insurance was tried in Malawi. I think there's still a program that's running in Malawi, originally \_\_\_\_\_ that that failed. It's now running for tobacco and maize with an effort, when I left it, to try to get it into cotton. Generally works better with a closed-channel market system. You've got to have excellent rainfall infrastructure, good crop models, and a close linkage between the insurance industry, the banking industry and the buyers of the crops. So it is possible but it's been – we were very optimistic five years, six years ago, when it was promoted. It's been very slow to get off the ground but I'm happy to share more information if you'd like.

*Baquet:* Well, with that, we're going to wrap up the Ag Sector Council for January. I would like to thank our speakers, Ian and David and David from joining us from Tanzania. And want to clap.

*[Applause]*

And as always, we'd appreciate your feedback via the – for those in person the evaluations that were on your chair – for those online, we have a link that you can follow to fill out an evaluation. The next Ag Sector Council will be in February, one of the last two Wednesdays of the month. We're still working on it but will be the final part of this series on inputs for agriculture and looking at public investments in infrastructure. With that, I thank you very much. You have a good day.

*[End of Audio]*