

SEEDS: SOME QUERIES ON ACCESS, MARKETING,
PROTECTION AND PROPRIETORSHIP

by

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Seeds, Some Queries on Acces, Marketing, Protection

and Proprietorship

What are the Operational Issues?

To set up a model of evil Agro TNCs patenting seeds, pressuring packages of inputs, acting through bureaucracies to entrench kulaks and landlords, ripping off or excluding poor peasants and landless is interesting, cathartic, morally uplifting and simple.

If the objective is to benefit poor people in poor countries it is too simple. It is unclear how one has arrived at the position where this model can be even reasonably accurate - most seed and seed/import package research in the Third World is undertaken by national public sector bodies and/or international crop research institutes (ICRIS). That fact should provide a firm basis for e.c.d.c. (economic cooperation among developing countries). Why has it not done so to date? What can be done about it?

Who Develops New Seeds/Packages?

The impression one gets from literature is that national and international agricultural research bodies develop most important new seed strains. Is this true? If so, how do TNCs acquire rights to distribute or adapt these seeds at all, much less proprietary rights over them? Why cannot the ICRIS and national bodies register their seeds with whatever international proprietary mechanisms there are and then allow TNCs to produce/sell them only in return for rights to produce/sell TNC-developed seeds in return?

The same query applies to input packages (water, insecticides, herbicides, fertilizer, tools, cultivation techniques). Don't ICRIS and national bodies do most of the work here? Why cannot they produce lists of alternatives by generic (to borrow drug analogy) names with eg's of

alternative proprietary (and if possible "non-branded") items and sources? This is an area in which the knowledge to permit "unpackaging" would appear to exist. Why is it not put to better use?

ICRIS Field Testing and Adaptation

ICRIS by definition are located in one country - some with a limited number of sub-centres elsewhere. Field testing and adaptation of seed is by definition national and local. How do the ICRIS relate to this process?

In many cases it would appear that they do not. The Southern African Development Coordination group of countries (the nine independent states of Southern Africa - from Tanzania south) are all in the semi-arid tropics. But until their 1979 request to ICRISAT for a mission with a view to creating a sub-centre (a request to which ICRISAT has not, to put it mildly, been very positive), their interaction with ICRISAT seems to have been negligible to non-existent. Indeed it would appear that this was typical of their relations with ICRIS and that ICRIS knowledge of their situation (they do grow maize, wheat, rice, millet, sorghum, groundnuts, cassava, potatoes and sweet potatoes and have national research programs on the first four) was more or less equally scanty.

If there is no coherent set of ICRI field testing and adaptation (for seeds and input packages) relationships and no systematic interaction making it easy for national institutes to secure and test ICRI developed seeds/packages, of course TNCs will move to fill the gap in ways maximising their sales of inputs. That appears - at least in Southern Africa - to be the present situation. However unintentionally, advice to the public sector to make room for and to collaborate/cooperate/compete with the private sector - such as that of the World Bank - reinforces this pattern of public knowledge donated to TNCs to entrench and enhance proprietorial profit.

Publicity and Marketing: Of Channels and Vacuums

If IRRI develops a seed potentially suitable for Tanzania, how does the Tanzania Ministry or Research Institute learn of it? Or if Tanzania wants a seed with specified characteristics for identified environments and input possibilities, how does it find out whether IRRI has one?

Assuming the knowledge barrier is overcome, how can samples, seed for bulk reproduction, seed for planting be obtained? Or initial advisory personnel on techniques and input package organisation?

It may be that there are answers other than: "not at all", "by accident", "via the 'good offices' of a TNC". If so they are not widely known in Tanzania at any operational level. Whatever the information and seed flow system from ICRIS to countries and their seed companies may be on paper, in reality it seems virtually non-existent so far as the more distant, less information system sophisticated potential users are concerned. Of course TNCs are happy to step in to "fill the gap" - at a price and with a package. But between them ICRIS and governments have created the gap for TNCs to fill by failing to develop their own channels of communication. To complain that large firms take advantage of knowledge gaps and market imperfections is like complaining that cats catch mice or that full purses left unattended on railway coach seats tend to disappear.

Protecting Seed Varieties

Massive use of a limited number of seed varieties causes the extinction (or at least falling out of sight of agricultural personnel) of "unimproved" varieties. These may later be needed for research into seeds improved in particular ways and for having a range of seeds to avert catastrophic disease damage if one seed becomes particularly prone to one disease.

This phenomenon has little to do with TNCs. Assuming the varieties to be preserved can be identified it is not insuperable. Collection and regular limited planting to keep seed "fresh", plus seed banks at national and ICRI level, should hardly pose insuperable financial or technical problems.

Conceivably the problem is that TNCs do preserve these seeds and nobody else does, thus giving (literally) them a monopoly. But the "cure" for absolute loss noted above is at the same time a cure for TNC monopoly - it puts the bank of available alternative seeds in ICRI and national hands.

Patenting, Property and Access - Some Suggestions

Most major new seed innovations, strains, hybrids, composites are ICRI or national government researched, developed, proven. For these there is - at present - every reason to seek whatever national and international registration/proprietary right recognition is available.

This can be complemented by free - or limited cost - cross access by all Third World countries who agree to make this two way, ie. the ICRI-Third World government registered varieties would have free (or limited fee access) for all ICRI and Third World governments on the basis of reciprocity. Clearly when advice and inputs and technical advisory personnel were needed these would be chargeable but not the right to use/grow the seed.

For seeds developed by Third World-based and owned companies the same registration approach plus a limited (not in this case zero per se) fee to Third World/ICRI users would appear suitable with the fee normally to be paid by handing over access/information rights to seeds in ICRI/TW "pool" which are of value to the company but for which it cannot charge monopoly prices because there is alternative access to them.

TNC subsidiaries in the Third World pose problems. National proprietary rights should not be given. Legislation to require that such seed be made available internationally on a basis analagous to that proposed for Third World companies would seem worth trying.

In respect to TNC seed developed elsewhere or already "protected" a different approach is needed. This could be to "trade" - no new ICRI-TW government pool seeds would be licensed to TNC seed companies except in return for licensing comparable "values" of seeds to the pool. There is - or is asserted to be - a special category. This is ICRI-national seeds which TNCs were allowed to use and over which they now claim proprietorial rights. These rights should be challenged: (a) informing the registration bodies they are invalid and filing ICRI/national claims clearly specifying when seed was developed; (b) making the seed available to other ICRI, TW governments, TW seed companies direct, bypassing TNCs; (c) going to court if need be.

These proposals assume that UPOV will, in fact, be accepted by most North and a significant number of South countries. They are workable within it if national legislation defines derogations from protection/compulsory licensing "in the public interest" (left to national legislation under UPOV) broadly and builds up an ICRIS/TW National cross licensing at nominal fee sub-system. If UPOV (or even general North PBR legislation on US-UK lines) becomes general, failure to protect ICRIS/TW Public Sector seeds is the worst of all possible responses, it donates them to TNCs who will register them after nil, or trivial "fine tuning", research.

An alternative - probably requiring minor alterations to UPOV and TW national legislation - would have ICRIS/TW Public Sector register seeds on a "disqualified" list, ie. "disqualified for proprietorial protection". Any user could have access for a limited user fee.

The most radical approach would be for ICRIS and TW States to refuse to recognise any UPOV or North PBR provisions ie. to encourage "seed piracy"/ "freedom of access to common agricultural knowledge heritage of humanity" and to build up effective information exchange, seed transmission, adaptive research, seeds banks among themselves. While in some ways the most attractive course in principle this one poses two hard questions: Will almost all TW States agree to this approach? Will ICRIS and CGIAR (largely financed by PBR and market advocates, eg. USA, IBRD) go along with refusal to give legal cognisance to North PBR/UPOV? The creation of WIPO (a clear cartel in restraint of trade in knowledge largely by and for TNCs, legitimised by a UN 'laying on of hands' as a specialised agency) suggests that the answer is "no!". If that be the case joining UPOV and enacting national PBR legislation along lines sketched above provides a potentially safe strategy.

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Thoughts on Adaptation, Marketing, Multiplication

ICRI-national findings on seeds and input packages need to be effectively accessible to other ICRIS' states by direct communication. How, to whom, etc., are questions of importance if the system is to work but whether or not is a question to which a yes answer is clearly appropriate.

For information to do much good four further areas need attention.

Field testing (of seeds and input packages) and resultant adaptation

should be wholly or largely independent of TNCs. This means more ICRI sub-centres and more systematic testing/adaptation of ICRI results by national institutions backed by ICRI advice and loaned personnel. Marketing (ie. transfers of seed and input package data) by ICRI and national institutions must be more systematic - at least at levels up to the quantity required for multiplication to commercial use. Third World seed companies (presumably usually national or sub-national but sub-regional or multi-national where this seems necessary or desirable) should be developed so that once seed strains are identified, tested, produced in quantities adequate to reproduce for commercial use (planting) there are enterprises other than TNCs to carry out that stage. Distribution of seed should be organised so that it actually does reach poor peasants - whether via agricultural officers, village shops, co-ops, crop authorities or other media is a contextual question as is whether it should be free, heavily subsidised or at a standard price. (What it should not be is de facto unavailable to poor peasants or available only at a higher price.)

Seeds, Packages and Poor People

Freeing seeds from TNC control is one thing, making them accessible to and suitable for poor peasants is quite another. The first is likely to be conducive to (and sometimes necessary for) the second, but is certainly not by itself fully adequate.

Seeds can be bred for almost any set of traits - albeit one cannot usually maximise all desired characteristics at once - and for quite different soil, climate, input contexts. If in a given context there are no improved seeds with decent yields for below normal water availability and suitable for use with limited input packages (very often what the poor peasant needs), the problem is rarely that the plant breeders cannot breed them nor that they have a professional bias against them (though this may sometimes be true - maximum yield for this trait and context will be lower than for others). The problem lies in the invisibility or irrelevance of poor peasants to national power structures (especially Ministries of Agriculture) and the lack of adequate social science research on what seed characteristics and what input packages really would be accessible to, controllable by, valuable in the hands of poor peasants and their organisations.

That is the topic for a different paper but it interrelates here - ECDC

will benefit those the participating DCs seek to benefit and not those invisible or irrelevant to them. Some seeds and packages are widely actually or potentially relevant to poor and small as well as richer and larger peasants, but this is not universally the case. Thus the problem is not merely TNC involvement nor agro-technology, but the instructions (both literally and in terms of markets for specific types of new seed) the states send to the seed breeders.

In Conclusion

On the face of it many of the problems in respect to seeds and TNCs seem to have little relation to agro technical questions nor to absence of potential countervailing ICRI/Third World state power and ECDC options. Some gaps appear to relate to commercial and social science naivete more than to any actual interest by plant breeders or Third World governments to create gaps for TNCs to exploit.

In part this appears to result - as do many of the technically unnecessary, and by no means always politically intended, negative results of the "green revolution" on poor peasants and rural landless workers - from the fact that plant breeders are not rural social scientists, specialists in political/social power structures nor management experts with experience in counteracting TNC power or building ECDC. Why should they be expected to be? Those of us with experience in these areas are rarely competent plant breeders!

This does, however, suggest a need for closer links among plant breeders, social scientists (idea breeders?), law and management specialists (institution breeders?), representative of the rural poor (hopefully social transformation or revolution breeders) and for such links to come as soon as possible in the seed development, testing, adaptation, "packaging", commercial production, distribution, use cycle - not only after unfavourable "side effects" including TNC entryism and domination have become plain after the event.

An area which illustrates this point is "packaging", ie., the specified compliments of water, tools, techniques and inputs to go with an improved seed to secure optimal results. First, before developing seeds it could be determined what input packages are presently or with practicable

changes (and specified programs to achieve them) available to poor peasants. Second, testing seeds under conditions approximating peasant conditions (often not done, especially in many national research institutes including a majority of those in Africa) and checking cost/return ratios of packages under those conditions. Third, specifying packages in terms of alternative combinations (e.g. of different fertilizer/water combinations, of different tools/techniques, of biological/chemical nutrient additives) and in generic (not brand name) terms. Fourth, working out how to cost - procure - distribute the "packages" most cheaply and with the lowest import component, ie., "unpackaging" relative to a TNC branded seed and input "package". At each stage more than agro technical expertise is needed - indeed stage four needs manager, lawyers, chemists, social scientists, transport analysts more integrally than plant breeders.

This example - still oversimplified and overgeneralised for direct application - illustrates the main contentions of this paper:

1. the issue of seeds-technology-TNCs are more complex than is usually perceived;
2. to fail to ask the right questions is assuredly to fail to find the right answers;
3. unless one has the right people (in this case including lawyers, representatives of the poor, social scientists and managers), it is very hard to ask the right questions and especially to ask them soon enough; and
4. plant breeders cannot be expected to ask all the right questions about law and business management any more than lawyers can ask those about composite versus hybrid versus "improved traditional" seeds. But they (like the lawyers) can be expected to meet with, listen to and understand the questions which other groups/ disciplines identify as important and build ways of answering them into ICRI/national seed development - adaptation - production - distribution - input package work.