

Comments on Form IV submitted by Parties to the combination Bayer AG (Acquirer) and Monsanto Company (Target)

Submitted by CUTS International to CCI

The Competition Commission of India (CCI), while investigating into the combination between Bayer AG (Acquirer) and Monsanto Company (Target), *prima facie* opined that the combination has, or is likely to have, an appreciable adverse effect on competition (AAEC). Accordingly, under Section 29(2) of the Competition Act, the CCI required Bayer AG to publish details of the Proposed Combination (Form IV). The submitted Bayer's details have been published by the CCI for public comments¹.

Following are the comments by the CUTS International on the said combination, in general, and the Bayer's submission (Form IV), in particular. CUTS is a consumer organisation and *inter alia* work on competition issues taking into account producer welfare and consumer welfare.

1. Preliminary comments

The Form IV submitted by the parties to the proposed combination (Bayer) does not give wholesome picture of the shape of things to come, which could influence the reference point for merger review/competition analysis by the CCI. Their submission, which uses some 'static' market data, fails to capture the 'dynamism' of the market, particularly when viewed in the frame of agriculture/food global value chain.

1.1. Competition to control the global value chain (GVC)

It is not merely competition in the agricultural seeds market or the agricultural chemicals market, but firms are tending to gain control over the entire food value chain. In order to do so, the global market is witnessing growing concentration and companies building synergies and complementarities.

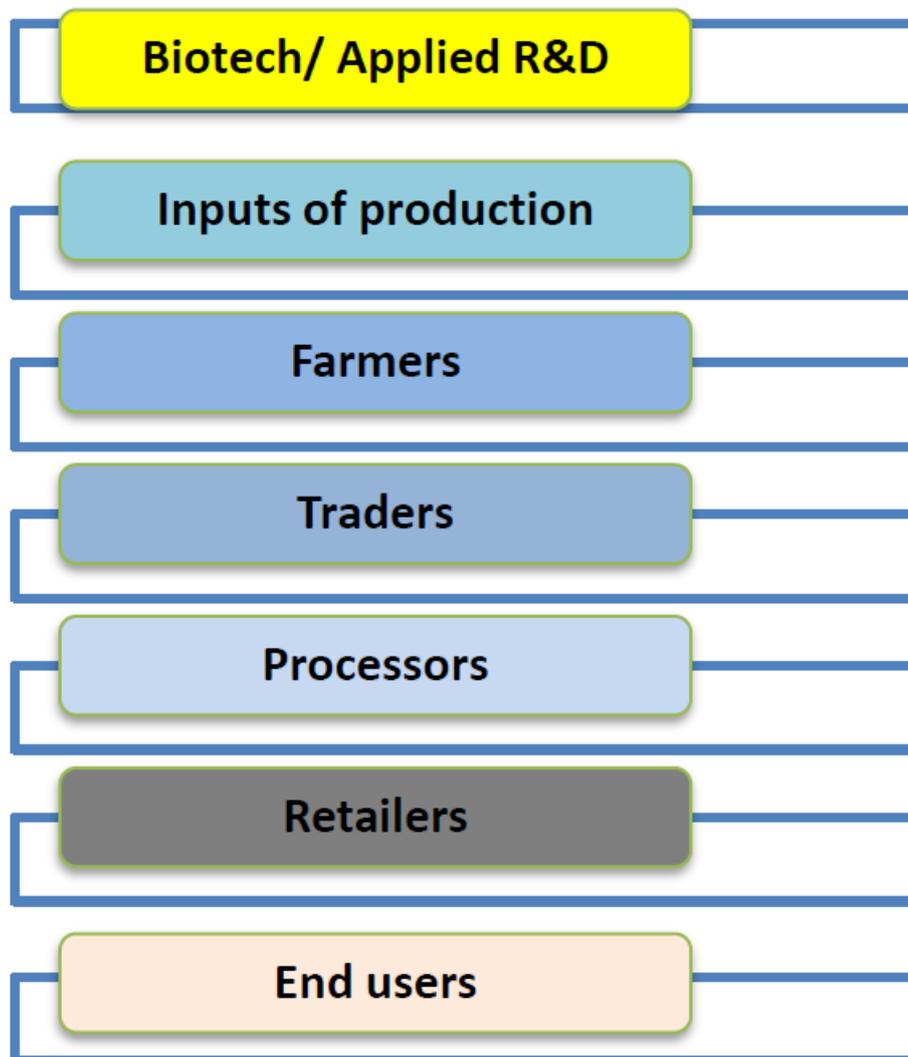
In the agriculture input market there is a growing trend of vertical integration (including strategic collaboration, cooperation and shareholdings) in both up-stream and down-stream of the agriculture/food value chain. In addition, with the use of information and communication technology (ICT) and data analytics (Big Data), the structural dimension of the market is

¹ <http://www.cci.gov.in/sites/default/files/FORM%20IV%20%281%29.pdf>

moving towards building super-platforms for one-stop solution. Thus all the nuances of digital platforms posing competition concerns would also be observed in agriculture GVC.

Thus market trend goes beyond consolidation and is characterised by expansion across the value chain and/or across geographical boundaries. Bundling of crop protection agro-chemicals with genetically engineered and hybrid seeds, strategic use of IP rights, expansion of adjacent markets etc. are all part of the 'game' that the Commission must keep in mind while reviewing the proposed combination.

Figure 1: A general view of the Food Value Chain



As brought out in a recent research paper by (Ioannis Lianos et al, 2017): *“A focus on GVCs will enable a re-conceptualization of the way competition law deals with vertical integration or quasi-integration. Traditionally, the relation between the different levels of a vertical supply chain has been thought as complementary, competition authorities rarely seeing any reason to intervene, unless one of the segments disposes of considerable market power and engages in acts of exclusion by, for instance, raising the costs of its rivals upstream or downstream. This approach tends to ignore the allocation of the revenues engendered by the supply chain between the various partners (“vertical competition”) as an issue external to the exclusive focus of competition law on economic efficiency. In contrast, the GVC approach recognizes that issues relating to the distribution of the total surplus value of the chain also take a prominent role in the relation between the various economic actors participating to the supply chain. By dissecting the chain-wide coordination of various economic activities, the GVC approach also better describes the systemic nature of GVCs, each part of the chain impacting on the others.”*³

In other words, competition analyses should not only look into “what is, in the relevant market”, but also “what is the likely shape of things to come”. Failing to do so can give rise to, in near future, types of competition concerns that would be very difficult to deal with, which in turn could have adverse socio-economic effects. As it is farmers are facing numerous problems and Indian agriculture seems to be under crisis.

1.2 Transformation at play

As illustrated in 1.1 above, companies are shifting from “input based models” to “platform based models” where they address end-to-end needs of farmers. The future is that of one-stop-shop solutions where consumers/farmers will depend on Internet of Things (IoT) and tech based system. While Monsanto (post-acquisition of The Climate Corporation) had been moving fast on integration strategy towards precision agricultural machinery equipment⁴, Bayer has

² <https://www.ucl.ac.uk/cles/research-paper-series/research-papers/global-food-value-chains-competition-law-brics-draft-report-20171117>

³ Ibid, p51

⁴ “Precision farming” makes use of sensors to collect information from soil (various parameters such as the level of moisture, fertilizers and pesticides, soil organic matter, various soil properties such as bulk density, texture, compaction, etc.), and satellite images about crop growth progress. It then combines all information using big data algorithms to analyse it, in order to plan and adjust in real-time the need for inputs (e.g. pesticides). It is promised that this may improve the crop yield, but it may also have the effect

also shown intention to adopt similar strategy. (Bayer has heavily invested in establishing a Biologics (crop protection) platform and is also present in digital farming.)⁵

Naturally, these platform owners will tend to increase their presence in the market by promoting their set of solutions and will not allow interoperability with the product or technology solution of its competitors (be it that of new entrants or that of incumbents). Building a consolidated platform would require considerable costs, which would eventually be borne by the farmer. Moreover, due to high entry barriers and substantial R&D costs involved, it would be nearly impossible for new competitors to enter the market.

The virtual non-existence of the opportunity for competitors to economically participate and compete in the market and the subsequent dependence of the farmer on big global conglomerates might significantly increase prices, reduce choice, lower the countervailing bargaining power and increase the chances of anti-competitive activities (collusion as well as abuse of dominance). In sum, this makes farmers critically dependent on global agriculture technology providers and may lead to the development of bottlenecks.

1.3 Circumscribing innovation

It has been widely acknowledged that innovation is one of the most essential components of growing a modern, thriving economy—in both the short and long term.⁶ Competition is one of the major inputs which drive innovation and vice-versa. Both are intricately linked, and this interrelationship will grow deeper as the world moves towards technology markets and an information based economy. Given its critical role in economic progress, it is vital to protect markets from possible anti-competitive activities or behaviour which actually stifle or might stifle innovation. This becomes all the more important for sectors and segments which rely on core R&D, such as seeds and agricultural chemicals.

The European Commission made the following observations in its decision on Dow-DuPont, which is worth noting: *“Only five companies (BASF, Bayer, Syngenta and the merging parties) are globally active throughout the entire R&D process, from discovery of new active ingredients (molecules producing the desired biological effect), their development, testing and regulatory*

to lock in farmers in the proprietor’s value chain, making them technologically dependent, as it owns or controls the data generated. (CLES Policy Paper Series, 2017/1)

⁵ CLES Policy Paper Series, 2017/1

⁶ See https://www.canada.ca/en/competition-bureau/news/2018/01/growing_the_new_economytheintegralrelationshipbetweencompetition.html

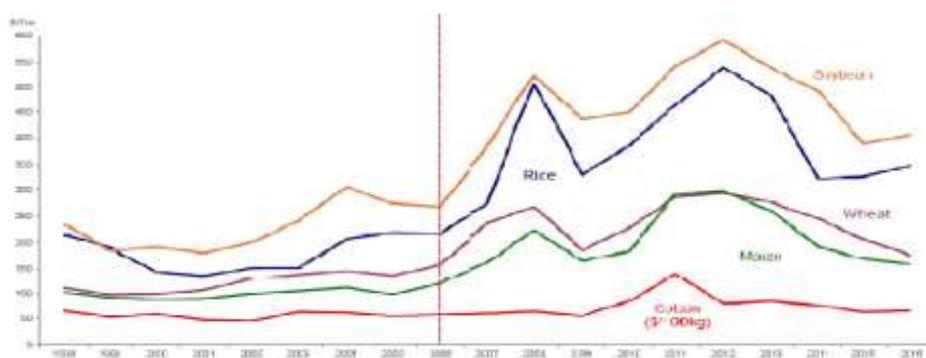
registration, to the manufacture and sale of final formulated products through national distribution channels. Other competitors have no or more limited R&D capabilities (e.g. as regards geographic focus or product range). After the merger, only three global integrated players would remain to compete with the merged company, in an industry with very high barriers to entry. The number of players active in specific innovation areas would be even lower than at the overall industry level.⁷ (Emphasis added)

Therefore, alongside giving due importance to upstream and downstream competition, merger review in the present case should also intricately examine the impact on innovation. This should also be seen in light of consolidation in R&D efforts due to previous combinations in the relevant market.

1.4 Decreasing/stagnating revenues the principal reason behind consolidation

In addition to the aforementioned, the decreasing trend in sales and stagnating revenues were main reasons which steered the decision of top players in the market towards consolidation. After reaching its peak in 2012-13, global crop prices recorded a declining trend with sharp fall witnessed in 2014-15 and subsequently stabilised from 2016 onwards.⁸

Figure2. Major crops pricing trend



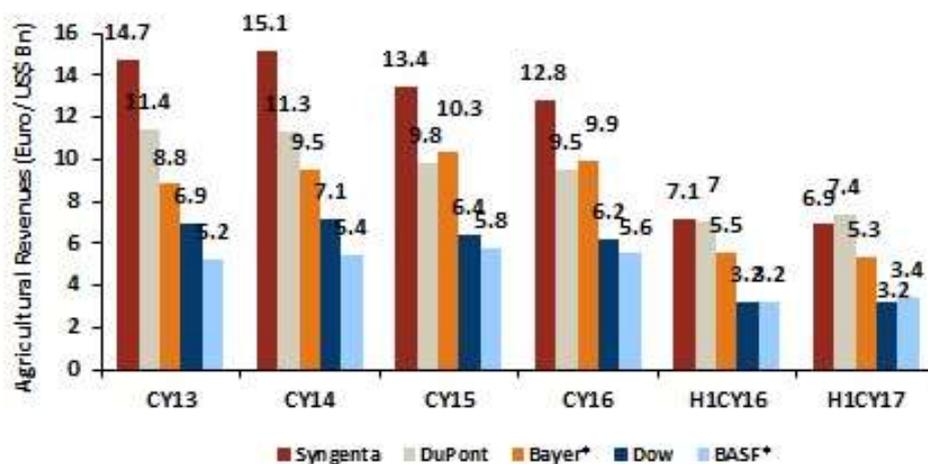
Source: ICICI Securities

⁷ http://europa.eu/rapid/press-release_IP-17-772_en.htm

⁸ See http://content.icicidirect.com/mailimages/Agrochemical_Inds.htm

Moreover, agricultural sales of the top agro-chemical companies declined in 2015 and 2016, which also subsequently stabilized in 2017.

Figure 3. Revenue of major agriculture input companies



Source: ICICI Securities

These factors in totality, triggered consolidation and the present merger can be viewed under the same rubric.

1.5 Reduction in Agro-biodiversity

It is well accepted fact that the maintenance and continuation of agro-biodiversity is the key for sustainable agriculture and food security. India is a bio-diverse country, and is centre of origin for many crops. The consolidation and integrations in the global seed industry is/would leading/lead to reduction of agro-diversity due to decreasing varieties of seed supply. Apart from raising food security and sustainability concerns, this decrease/loss in seed diversity would also decrease consumers' choice and loss of opportunities to those agriculturists who could have earned more due to the varietal distinction (including geographical indication) from their farm produces.

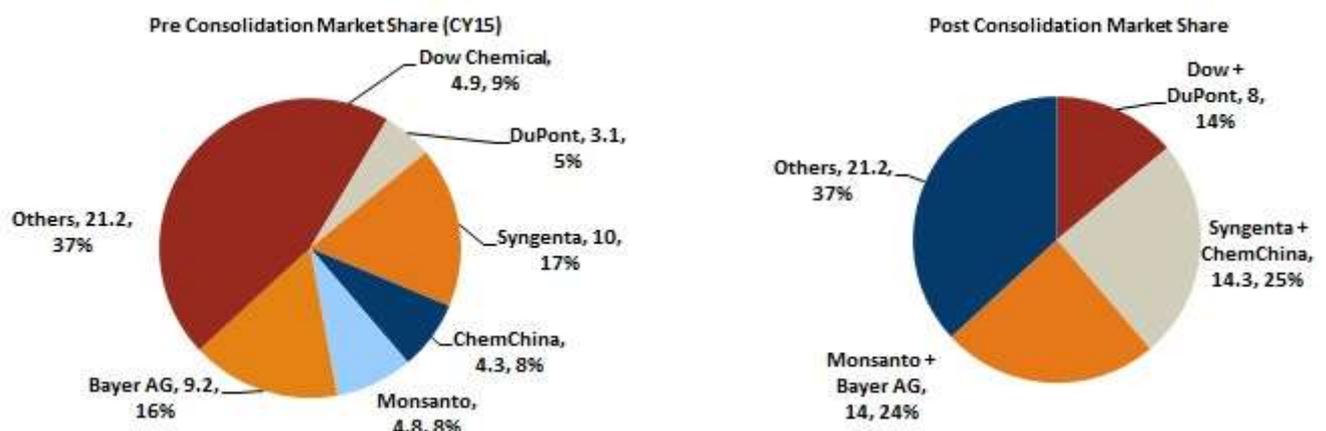
1.6 Post-market situation of other mega mergers

The proposed combination of Bayer-Monsanto need to be reviewed in light of the market scenario after the three recent mega-mergers – Dow-DuPont, ChemChina-Syngenta and PotashCorp-Agrium (reportedly they are also planning to enter seeds and crop chemicals

market). The review process should include an analysis of projected market structure emerging after all these M&As.

For instance, according to one estimate, if approved, just three corporations would control about 60 percent of the global patented seed market and 64 percent of the agrochemical market. Further, it is also reported that: (1) the 10 biggest pesticide firms now control 90 percent of the global pesticide market; (2) that 10 companies control 76 percent of the animal pharmaceutical sales; and (3) that 10 animal feed companies control 52 percent of the global animal market.

Figure 4. Global Agro-chemical Industry market share trend & prospect



Source: ICICI Securities

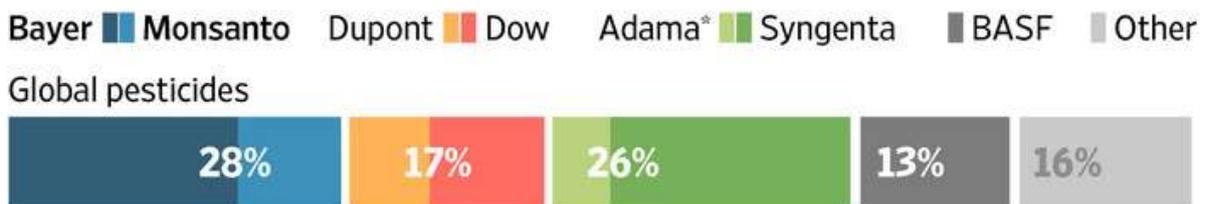
The assessment as to whether a merger would give rise to AAEC is, generally, based on a counterfactual analysis where the post-merger scenario is compared to a hypothetical scenario absent the merger in question. Thus the Commission may like to take into account future changes to the market that can “reasonably be foreseen”.

Figure 5. Bayer-Monsanto combination and overall market scenario

Crop Kings

A Bayer-Monsanto combination would rival the Dow-DuPont and ChemChina-Syngenta deals and push Bayer deeply into the biotech-seed business.

Market shares resulting from proposed deals



Source: The Wall Street journal⁹

1.7 Public interest in competition analysis

Given the nature of the product (seeds) involved, there is a growing acceptance for competition law enforcement to take into account public interest aspect (e.g. food security, biodiversity sustainability, farmers' welfare etc.) into key analyses. For country such as India, which is rich in agro-biodiversity and has a very large population dependent on agriculture for sustenance, the case for such 'inclusive' competition analysis becomes much more relevant. The following excerpt from a recent research study is self-explanatory and contains useful insights:

“Global seed producers (Monsanto, Syngenta DuPont, Pioneer, BASF, etc.) continue to increase their global presence in the “seed chain” and have recently acquired critical market influence in key food exporting regions. Combined with the natural complexity of global food production-supply chains, any disruption in seeds supply may cause a systemic food shock of a global magnitude. There have also been some significant changes at the upstream level of the food value supply chain which reinforce the power these global seed players exercise over a significant part of the global food value chain.

⁹ See <https://www.wsj.com/articles/bayers-bid-for-monsanto-faces-hurdles-1463704261>

First, these players develop intellectual property rights (IPRs) strategies, providing them a reward for the significant value they add to the chain through R&D, but also in order to reinforce their dominance towards farmers, capturing the significant part of the value added along the whole food pipeline. Agriculture has become increasingly technology driven (biotech, crop protection, microbial solutions, big data and analytics software). In the current value chain context, to remain competitive and to stay in business, farmers have to adapt the latest technologies from the global factors providers, who use intellectual property protection or Big Data as a bargaining tool in their relations with farmers. This makes farmers critically dependent on global agriculture technology providers and may lead to the development of bottlenecks. Farmers' labour is increasingly commoditized causing social tensions, in particular in emergent economies and the developing world. Competition law is seen in some quarters as a possible response to this increasing power of global seed platforms.

Second, the development of new technologies has led to the emergence of a diverse group of players: crop protection and seed companies, equipment companies, fertilizer companies, retail distributors, and pure-play digital start-ups. These seek to develop an “integrated offering of equipment and services for farmers,” enabling them to “gradually build a compelling one-stop solution that will allow them to compete for the lion’s share of the market”. Consequently, these companies develop strategies in order to develop new capabilities and exploit different sources of revenue by “applying new technology or by expanding across the value chain or geographically”. This is achieved by significant merger and acquisition (M&A) activity, leading to higher levels of concentration on several markets. Market players therefore have made the choice of positioning themselves as fully integrated providers, or the orchestrators of a network, or partners of an established network, which may lead to the development of bottlenecks in the food supply chain affecting consumers and other market actors, such as farmers.”¹⁰

1.8 New approach in merger review by FAS, Russia

It would not be out of place to mention the innovative approach adopted by the Federal Antimonopoly Service of Russia (FAS) while conducting review of Bayer-Monsanto deal recently. The same approach may be adopted by the CCI in reviewing the present proposed

¹⁰ <https://www.ucl.ac.uk/cles/research-paper-series/index/edit/research-papers/cles-2-2016>

combination. The following excerpts from a FAS press release¹¹ put the matter in right perspective and are very relevant for the CCI to consider in the present case:

“Both Bayer and Monsanto are vertically integrated full-cycle agro-technology companies active in agro-technology research and development as well as in the distribution and marketing of their products to agricultural producers.

Considering that technological transformations, including digitalization worldwide, have become key to understanding competitive dynamics in the agricultural sector, FAS Russia has applied new methodological approaches to identify potential anticompetitive effects of the merger both in the Russian and global markets...

FAS Russia has conducted market analysis for the factors of agricultural production relevant to the merger review including emerging market integrated agro-technological solutions that has been recently formed in a process of on-going systemic technological and business transformations within the agricultural sector.

All these markets were analysed by FAS Russia in the context of increasing globalization of the world economy and integration of agricultural production into the global food value chains. This required FAS Russia to assess not only ‘horizontal’ relations between the market competitors but also ‘vertical’ interactions between different segments of the global food value chains.

In the context of the accelerating pace of innovation in the agro-technology sector, FAS Russia assessed not only the merging parties’ market shares but also the most probable scenarios for market transformation including changes in their competitive structure and dynamics in the short and medium term perspectives.

These changes are caused by an on-going systemic shift in the agro-technology markets that requires from companies if they want to be globally competitive to provide integrated (packaged) solutions to farmers which includes customized seeds, targeted crop protection solutions, as well as digital solutions based on big data analysis (with regards to soil, climate and other agronomic parameters) collected and processed within the digital farming platforms.

In assessing the impact of the transaction on competition in the Russian market, FAS Russia based on the assumption that the combined company possesses strong capacities including big genetic

¹¹ <https://en.fas.gov.ru/press-center/news/detail.html?id=52417>

data; latest technologies for accelerated genetic selection allowing the development of biotechnology seeds with predicted characteristics not subject to regulatory restrictions aimed at the control of cultivation of genetically modified organisms; as well as big data and algorithms for digital farming.

All this may allow the combined company to increase its market power in a technologically changing environment quickly and effectively. This may possibly lead to a fast increase in the combined company's market share up to reaching a dominant position in the affected markets dependent on the abovementioned technological changes; as well as to creation of high entry barriers for market player lacking some of those technological and data capacities at once.

FAS Russia has concluded that the merger can cause the following anticompetitive effects:

- creating new and increasing existing barriers to entry in relevant markets (including those generated by introduction of closed digital agronomic platforms to the Russian market);
- enhancing incentives for anticompetitive agreements and concerned practices (considering already high level of concentration in this sector, the merger might substantially reduce a number of market players having all necessary technical and data capacities to effectively compete in the new technological and economic environment);
- increasing possibility of abuse of market power (combining innovative technologies, data, and platform solutions will allow the combined company to rapidly increase its market share up to a dominant position in a short term perspective).

Hence, FAS Russia has concluded that the merger creates substantial risks of restriction of competition, and those risks should be levelled in the course of the merger review.

As the most balanced solution meeting objectives of competition protection and not creating impassable obstacles to the proposed transaction, it was chosen to establish behavioural remedies aimed at creating conditions for the development of potential competition from the side of the Russian companies by providing them with an effective transfer of technology available for and specific to agro-climatic conditions in Russia in combination with granting access to data and knowledge required for the development of the new varieties/hybrids of key crops within which the Russian market mostly depends on the import of genetic materials, as well as to solutions in the field of digital farming.

Combination of that requirements with the obligation to provide non-discriminatory access for the Russian companies that are suppliers of resources to platform package solutions offered to agricultural producers by a combined company basing on digital agronomic platforms for precision farming will provide conditions not only for the development of the new competitive varieties and hybrids of crops, but also for their integration into the effective economic competition within the global production chains.

To comply with this decision Bayer has within three months to enter into an agreement with a competent organization, authorized by FAS Russia, to ensure and monitor the proper non-exclusive licensing of agricultural technologies and to ensure non-discriminatory access to digital agronomic platforms. The contract becomes effective after the implementation of Bayer/Monsanto transaction.

Decision taken by FAS Russia in conditions when a lot of market players, scientific and expert organizations, as well as interested federal executive authorities expressed their opinion on the need to prohibit this deal is the most balanced one, since it takes into account both the interests of the parties to the transaction, enabling them to continue the merger process, and the tasks related to protection of competition and developing the domestic agricultural market, creating conditions for the effective integration of Russian economic entities into the value creation in the Russian agro food markets and for effective development of competition in such sensitive segments that determine the food security of our country.

(Emphasis Added)

Therefore, the CCI need also to adopt in its review an approach similar to that of the FAS Russia, taking into account the information contained in paras 1.1 to 1.8 would be in the national interest as well as in farmers/public interest.

1.9 In Sum

In light of the above discussion, it can reasonably be deduced that the impact of the impugned proposed combination on the Indian market can be multifaceted. This includes the following chief effects:

- i. Increasing the possibility of anti-competitive agreements
- ii. Increasing the possibility of abuse of dominant position
- iii. Lowering the countervailing buyer power

- iv. Adversely impacting competition and innovation in technology markets and platform-based, data-driven solutions for agriculture
- v. Increase in prices of agricultural inputs and concurrent decrease in choice of products and agro-solutions for the farmers

2. Comments on merit

Without prejudice to what has been discussed above, the following are CUTS International's submission on the Form IV:

1. In the Form IV, it is claimed that since the Parties' activities are largely complementary, therefore the proposed transaction does not give rise to a significant increment in any of these business areas. *It is proposed that the Commission may like to review this statement in light of the preliminary comments given above.*
2. As per the Form IV, there are significant overlaps with respect to vegetable seeds in India. Although it has been claimed that the Proposed Transaction does not cause AAEC, *it is submitted that there should be in-depth review particularly for those vegetable seeds where combined market share would be more than 25%.*
3. There are high barriers to entry for agro-chemicals and hi-tech seed industries as well as in forming a competitive digital platform, contrary to what have been claimed in the Form IV.

3. Prayers

In light of the above-stated preliminary comments and comments on merit, it is humbly prayed that the Commission:

- a. Conduct an in-depth review taking into account larger public interest, including food security, biodiversity and sustainability of agriculture in India, as well as farmers' welfare and consumer choices, as discussed above;
- b. Conduct the review keeping in mind the post-mega-mergers market structure and the emerging trend (digital platform) as discussed above;
- c. Pass any other order(s), that it deem fit in public interest, given the circumstances as illustrated in the above-stated facts and information.

Name, address and contact details of the person:

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How such a person(s) is adversely affected or is likely to be affected by the combination:

CUTS International is a consumer organisation and the proposed combination would add to the already consolidated agriculture input market, which is very likely to effect the immediate consumers (farmers) and consequently on end-consumers in number of ways, such as higher price of product and reduced choice of products.