

**To,
The Department of Agriculture, Cooperation and Farmer Welfare
Government of India
Krishi Bhawan, Room No. 120, First floor,
Dr. Rajendra Prasad Road, Connaught Place,
New Delhi - 110001**

June 30, 2021

We thank the Department of Agriculture, Cooperation, and Farmer Welfare for the opportunity to provide feedback on the 'Consultation paper on IDEA' (hereinafter paper/report). The process of consultation is a welcome one, and we hope that this spirit of transparency and due process is continued in the framing of future reports, policies by the Department. The report however is still quite far away from a meaningful, implementable policy document. We hope that this draft will go through several transparent iterations before getting finalized. We look forward to engaging further on this issue.

Aapti Institute

Recommendations for the IDEA Consultation paper

On June 1, 2021, the Union Government, *via* its Department of Agriculture, Cooperation and Farmer Welfare (hereinafter 'Committee') released the consultation paper on India Digital Ecosystem of Agriculture (IDEA). The objective of the paper is to digitize the agricultural sector, to overcome the various challenges faced by it such as inadequate market infrastructure or linkages, unpredictable or volatile prices, and lack of crop planning due to information asymmetry. It also aims to be a "one-stop-shop for all the agricultural needs of the ecosystem." The Committee provided until the end of June for the public to give feedback.

It would be an understatement to say that the agricultural sector is an important part of the Indian economy. The sector's contribution to the country's GDP increased from 17.8% in 2019-2020 to 19.9% in 2020-2021. However, one cannot say the same when talking about the impact of digitization in agriculture. This is an issue that the report aims to deal with, which, at the onset, we commend. However, we find that there are many issues in the nuances of the report that may infringe upon various rights of stakeholders, like the fundamental right to privacy. In our feedback below, we highlight each of these issues, the problems with that provision, and suggest alternate solutions that strike a balance between the objective and the interests of the stakeholders.

The most important recommendation is that before implementing the ideas in this report, a pilot study must be done, the results of which must be published and reflected as modifications in the final policy. While the Committee has addressed this through the mention of an 'impact assessment framework'; it is essential that this must include within its scope a privacy impact assessment as well, considering the core basis of the policy is the data of the farmer community.

1. Issue: The IDEA consultation paper (hereinafter 'paper') notes that the problem of information asymmetry exists in the agricultural cycle which leads to issues like lack of crop planning.

Recommendation: One of the reasons for this problem is that data collection is because of policies that are framed using a top-down, non-consultative approach, which is accessible only to select stakeholders. Farmers do not have access to the raw or inferred data collected and analyzed by the Government. Lack of access to proper internet infrastructure, especially for small and marginalized farmers in remote areas leads to asymmetrical access to information. Without this, the report cannot achieve its aspirations of empowering the farmer to make "informed decisions on what crop to grow, what variety of seed to buy, when to sow,

and what best practices to adopt to maximize the yield." Both these issues must be addressed either before drafting the policy or before its implementation, for it to be effective. Public consultations for policies that impact agriculture have taken place in the past, which allowed for community-level perspectives to be considered before taking major decisions. Even for this report, there is no clear evidence of farmer communities being consulted and their inputs being included. This exclusion from participation while directly jumping to implementation might lead to issues of reluctance or mistrust in the community. The Committee must also deal with the issue of the poor data quality in the existing Government datasets, before combining all of them to make major decisions. Wrong data or data that is not updated, if used year after year, can have a detrimental impact on stakeholder's abilities to make decisions.

2. Issue: The report finds that there is a need to adopt a decentralized, federated architecture that assures autonomy to the service providers and all other actors, while also ensuring interoperability.

Recommendation: We agree with this provision. The structure will help in the easy access of data while ensuring its privacy. Storing data in a centralized database might render it vulnerable to problems like hacking. However, the term 'all other actors' inserted after service providers is vague. The question then arises as to whether this includes members of the farmer community, and whether they will have autonomy and agency over the data collected from them.

The 'core building block' as recommended by the report goes against this principle of decentralization, as it is a database that is 'designed, developed and maintained by the Government'. All databases must be made accessible and shareable by stakeholders, in a secure and privacy-preserving manner.

The report recommends that a 'cloud-first approach' be adopted for storing data. The Committee must address questions such as whether this cloud is going to be a centralized database and if yes, justify how it does not violate the decentralization principle recommended in the report.

Concerning interoperability, we commend the report for promoting applicable standards, while ensuring that digital rights are properly managed. In pursuance of this, the report recommends the adoption of an 'open-API by default' and that the system will be 'open, open and open. The same statement however contains a contradiction when it says that there will be exceptions to this rule of default. The report does not list out these exceptions, which can be wide and varying. We recommend that these exceptions and their justifications be shared before in the next draft of the report. This should then be up for debate and the Committee must include the feedback in this regard. Additionally, the report says that it will adopt 'syntactic and systematic' interoperability for sharing data. The report however provides very little visibility about these interoperable standards. We recommend that technical experts

from the public be called upon to examine these new technical standards for interoperability before it is implemented. For example, they can help decide on encryption standards to be followed while sharing data in an anonymized and aggregated manner. Considering the agricultural sector does not have these standards yet, it is important to make sure that the data is shared in a secure and privacy-preserving manner. 'FAIR' like standards have been discussed and implemented on the international sphere in the agricultural sector - the Committee can use these policies for reference purposes.

3. Issue: The report highlights the need for "paramount importance of privacy through the protection of personal data".

Recommendation: Personal data is undeniably an important aspect of the agricultural sector. Farmers' names, financial details, age, education, etc are collected and stored in Government databases and updated every year. However, all of this is being done in the absence of any legislation to protect personal data. This denies the farmers the benefits of exercising their rights as data subjects. The Personal Data Protection Bill, 2019, is still under discussion by the Joint Parliamentary Committee. We suggest that the IDEA policy, and any policy or decision relating to the farmer community or agricultural data be put on hold until this legislation is finalized. Not doing so would put the community's data at risk, for example, if there are any privacy infringements, community members will not have a concrete grievance redressal mechanism to approach.

4. The Committee recommends adopting an ecosystem approach to address the challenges holistically faced by the agricultural sector.

Recommendation: While we agree that this approach is required for the sector, there are two issues with it. First, the Committee must explain how the ecosystem approach will work in tandem with the mandatory data-sharing approach recommended by the Non-Personal Data Governance Framework. It must also explain the plan of action in case of any conflicts that arise between the two approaches. The Committee must also clarify whether the 'data exchanges' will be made mandatory. If yes, it will be in contradiction to the ecosystem approach which stems from the voluntariness of the participation of stakeholders. We at Aapti Institute recommend that the ecosystem approach be adopted as a whole, over the mandatory system. The Committee recommends that some data like weather data should be classified into two - open and priced. The prices for this data should be negotiable, to make it easier for start-ups to get access to it. This negotiation can take place openly and transparently in data markets.

5. Issue: Unique Farmer ID (UFID), a random number, is assigned to every farmer in the country

Recommendation: At the outset, the Committee must explain the need for having a separate ID for the farmer community, instead of using the existing IDs. Having an additional identification might be an unnecessary waste of resources, which might be otherwise utilized.

The Committee must specify the data that is collected and stored while registering for this number. The principle of data minimization must be followed in this regard - only necessary data must be collected. Additionally, the farmer must be able to exercise the rights as a data subject, which links back to the argument of the need to have a PDP Bill before implementing this policy. It also says that the number will be linked to 'other permitted IDs' - these IDs must be specified for clarity. The Committee must also address the issue of those farmers who refuse to give their consent to enter the UFID system or options if they want to opt-out of it. Assurance must be provided that a person will not be denied benefits under the policy merely because they do not have an Aadhaar ID or because they chose to step out of the system. Another issue is that the core registry will contain the UFID data, while core directories contain the same data as registries, except that they will not have the UFID data. It is unclear as to why there need to be two separate systems for storing the same data - this might lead to excess usage of resources and the duplication of UFID data. The report says that the UFID will not store any 'transaction data'. It must specify what this 'transaction data' entails - does it include payments made by farmers for business purposes or does it exclude all financial details of stakeholders?

6. Issue: The Unique Farmer Interface System (UFSI) is a platform set up to handle multiple transactions in the digital architecture space.

The Committee must define the specific transactions in the 'digital architecture space' that will be handled by the platform. It must also explain why there is a necessity to have a separate platform for financial transactions in the agricultural sector. Storing financial details (which has been recognized as 'sensitive personal data in the PDP Bill) in multiple platforms (like the UPI and other payment apps, and now the UFSI) may render it susceptible to harm. As an alternative, personal data stores with clear fiduciary responsibilities can be more helpful in the decentralized storage of financial data. It allows individual users to control their data more closely. The digital architecture of the platform and any APIs connected with it must be securely made open source, without compromising on the financial data of the users. Assurance must also be provided that the data from these transactions will not be shared with third parties like banking institutions and insurance companies, and then used to make important decisions such as denial of loans or premiums. The Committee must also clarify if the UFSI is a consent manager as defined in the Data Empowerment and Protection Architecture Framework. The UFSI must have a separate data protection policy and privacy policy, which must be made accessible to users. The API for States to share data from their FSI to the Union Government's UFSI must be made open source. The list of private agencies joining the UFSI must be available in the public domain. The principle of data minimization must be followed while sharing data with them, and they must undertake a guarantee not to use the data collected against the interests of the user. The consent of the user must be taken before sharing the data with private agencies. Additionally, private agencies must at no stage mandate the submission of Aadhaar details from users for using the UFSI or the State FSI, by the Supreme Court judgment in *Justice K. S. Puttaswamy v Union of India* (2018). The

contract or memorandum of understanding for the proposed collaboration with the National Payments Corporation of India must be in the public domain. Additionally, one of the elements in the 'Common/Reference Building Blocks of InDEA 2.0' is a payment gateway - for this, the Committee has recommended that BHIM or UPI can be leveraged for this. The Committee needs to clarify why it is adopting two different payment platforms in the same report for the same sector.

7. Issue: The report aims to adopt a 'mobile-first approach' via its IDEA App Store

While this is a commendable objective, the Committee must consider scenarios such as individuals without mobile phones - whether a basic handset or a smartphone, individuals living in areas with poor mobile connectivity, and those who own mobile phones but are not digitally literate to use them in the manner intended by the Committee. It must address how it plans to deal with such exceptions, to ensure that people are not excluded from the benefits of the IDEA platform. One possible way is by setting up an offline entity to assist users who fall in these exceptions - the Kisan Call Centre can be a multipurpose centre in this regard. The Committee in its report has asked if "factors like smallholdings, digital illiteracy, resource constraints, and last-mile connectivity are so serious as to defeat the goals of IDEA?" To this, we reply yes, these are factors that are either overlooked or underestimated in the excitement of adopting digital policies. Merely introducing technology into the system will not benefit the farmer community, if they are unable to use it in the most efficient manner possible.

8. Issue: The Committee aims to introduce an IDEA Sandbox (I-Box) "to promote open innovation while creating a Minimum Enabling Environment"

The Committee must clarify if this IDEA Sandbox is similar to the digital sandbox recommended in the National Data Health Management policy. Figure 7 of the report 'High-level architecture of the I-Box' contains a part saying "Other digital ecosystems - public and private" - the Committee must explain what this will entail. Basic principles of data privacy must be followed concerning the data used for testing purposes: Consent of users must be taken before using their data in the sandbox. Data must be strictly shared in an anonymized and aggregated format and at no point in time, must it be de-anonymized. The real-life impact of the testing must not be imposed on the users. Organizations testing with the data must be held accountable for privacy infringements that may take place. They must also delete users' data after their association with the sandbox has come to an end. While sharing data of users, the principle of data minimization is to be followed.

9. Issue: The report states that the "apparent and latent value of (agricultural) data is not exploited to any significant level currently."

Recommendation: Data must always be looked at from two perspectives - derivation of economic benefits and promotion of user agency. The report however only addresses the issue from the former perspective. It looks at getting the maximum benefit from data by setting up platforms to collect, analyze and exchange data. It overlooks the very source of this

data - the farmer community - who will only be incentivized to share their information if they get concrete benefits in return. One such benefit is their ability to control the use and exchange of their data. This can either be done by them directly or through a data stewardship model. This model is different from the data trustee model recommended in the NPD Governance Framework. Data stewards are responsible for the data of the farmers and make decisions for sharing their data that is only in their best interest. There is a relationship of trust between the community and the data steward, who is usually a civil society organization that works directly on-ground. This point also relates to the need to have a PDP law before bringing in any policy that directly or indirectly impacts individual and community data - one of the strongest ways by which user agency can be exercised.

10. Issue: The Committee recommends that the current National Agriculture Applications developed by States must undergo an audit to ensure that it complies with IDEA's principles.

Recommendation: We approve of this suggestion by the Committee. Periodical checks like these are necessary for technological applications developed either by the State or by private entities. In furtherance of this, we recommend that these audits are made available to the public which can expand the accountability of those who develop these applications. Similar audits must be done for all the platforms to be introduced by IDEA and others that will impact the agricultural sector, like the Agristack platform. This however has to be done keeping in mind the federal structure of the country - the Union Government cannot use this policy as an excuse to overstep and control the working of the States.