**Annex VII**

Recommendations of FAD28/Panel1 on the final report of R&D project are as follows:

1. Validations for two SLV methods for vitamin B12 and Vitamin B5 were completed for all the matrices and achieved satisfactory results of HORRAT ratio. The limit of quantification of 0.12mcg/100g for Vitamin B12 using HPLC-UV method and 0.8mg/100g for Vitamin B5 using LC-MS/MS was established for food matrices. It supports the applicability of matrices and extension of scope.

2. MLV for vitamin B9 forms (folic acid, 5-MeTHF) based on AOAC 2013.13 is fully validated for fortified atta and dried peas. The LOQ is 0.33 mcg/100g for folic acid and 5-MeTHF. It supports the extension of scope for Cereals and Pulses, vegetables. The Peanut data statistical analysis is in progress.

3. MLV for Vitamin D based on AOAC 2016.02 is validated at nodal laboratory and practice samples statistical analysis is in progress. The LOQ is 10 ug/Kg for fortified vegetable oils.

4. MLV for Vitamin B12 forms (cyanocobalmin and methylcobalamin) based on modified AOAC 2011.10 is validated only at Nodal laboratory and has satisfactory results of HORRAT ratio. The LOD is 0.25 ug/Kg for cyanocobalmin and methylcobalamin for fortified atta and almonds respectively.

5. The Panel identified that vitamin B5 and D methods are adopted ISO methods and the data obtained for new matrices can be included in the existing method with revision of title, scope, performance characteristics of new matrices.

6. The Panel suggests to retain existing microbiological assay methods of total folate in food stuffs and Vitamin B12. The new data obtained from MLV and SLV of Vitamin B9, and B12 shall be considered as new IS methods. Further, as the objective of the project was revision of 4 old Indian standards, hence retaining the microbiology-based method for Vitamin B12 may be discussed during the sectional committee meeting of FAD 28 on 29-08-2024.