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New Data for Monitoring Investment in Agriculture

Executive Summary

Investing in agriculture is one of the most effective ways of promoting agricultural productivity, raising real incomes, reducing poverty and food insecurity, and enhancing environmental sustainability. To provide a global database on investment in Agriculture and Rural Development, the Statistics Division of FAO is developing a new program on Investment Statistics that will monitor national trends in agricultural investment and its financing sources, and enable comparisons across countries. Datasets will include Agricultural Capital Stock, Government Expenditures in Agriculture and Rural Development, Official Development Assistance to Agriculture, (domestic) Credit to Agriculture, Foreign Direct Investment in Agriculture, and Foreign Remittances. These will be compiled to derive Country Investment Profiles, that provide levels and trends in total investment, and its sources of financing.

The approach in developing this statistical domain relies on harvesting, where possible, data from other international organizations and from official country websites in order to minimize cost, duplication and burden on countries. Questionnaire-based data collection is used to obtain the necessary details otherwise not available. The approach will also see annual production of key relevant indicators, including agriculture shares of total investment, and an agriculture orientation index. Policy researchers will also benefit from free access to data via FAOSTAT, and access to analytical databases and documentation.

Current challenges include addressing data gaps at country level that arise from missing or unavailable data, lack of detail, or lack of documentation. The support of COAG and country-level efforts are necessary to address these challenges and to ensure relevant, high quality and internationally comparable information on agricultural investment.

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Suggested action by the Committee:

The Committee is invited to provide guidance on:

- a) The suitability and relevance of FAO's approach to building a global agricultural investment database and country-level investment profiles.
- b) How to ensure maximum relevance and awareness of the new statistical program and its outputs, including the development and testing of new investment indicators and data products.

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I. Introduction

1. Investing in agriculture is one of the most effective ways of promoting agricultural productivity, raising real incomes, reducing poverty and food insecurity, and enhancing environmental sustainability. Countries with the highest growth in agricultural investment growth between 1990 and 2005 also made the greatest progress towards the World Food Summit (WFS) goal to eradicate hunger and reduce the number of undernourished, while those with low investment growth experienced the highest prevalence and depth of hunger and the largest setbacks in achieving the WFS target.¹

2. Evidence on its benefits have led to investment-enhancing policies, though ongoing monitoring and evaluation is made difficult by the lack of consistent and coherent investment data. For example, *the Maputo Declaration on Agriculture and Food Security* saw African Union member states pledge to allocate 10 percent of their national budget to agriculture, while in Bangladesh, the Central Bank monitors a floor on the minimum proportion of commercial credit made available to farmers. The absence of and gaps in agricultural investment data, however, make it difficult to assess countries' relative performance and to identify the most effective types of investments.

3. FAO's strategy to address the challenge in monitoring and evaluating agricultural investment involves developing a new Investment Statistics domain. This domain will compile a comprehensive and coherent global database on the level of agricultural investment and its sources of financing, and will re-use, as much as possible, existing country-level data to reduce duplication, burden and cost. The key challenges that remain include filling data gaps and ensuring common ways to measure investment, both of which require country-level cooperation and effort.

II. FAO's Current Work on Investment Statistics

4. FAO's new Investment Statistics program, with data to be published in FAOSTAT, is pulling together information on the level of investment in the Agricultural Sector (agriculture, forestry and fisheries), Rural Development, and Environmental Protection, and its domestic/foreign and public/private sources of financing. To enable comparison across time and across countries, it will include common indicators on investment levels and trends, the agriculture share of economy-wide investment, and an agricultural orientation index, described later. The datasets, described below, include: a) Capital Stock; b) Government Expenditures; c) Official Development Assistance; d) Credit to Agriculture; e) Foreign Direct Investment; f) Foreign Remittances; and g) Country Investment Profiles.

A. Agricultural Capital Stock

5. Agricultural Capital Stock (ACS) is the internationally accepted method to measure accumulated agricultural investment, while changes in ACS measure the value of net new investments. Worldwide ACS, compiled by FAO, was valued at USD 5 trillion in 2007, a 20 percent increase over the 32 years since 1975². Despite being the most comprehensive data available, these statistics are now outdated, exclude the important forestry and fishery subsectors, and have serious limitations in measuring the underlying agricultural machinery and equipment component.

6. To build a broader, more reliable and timely ACS database, the Statistics Division of FAO (ESS) has developed a new methodology based on national accounts data and estimates compiled by the UN Statistics Division (UNSD) and the Organisation for Economic Co-operation and Development (OECD). This new data, which encompasses agriculture, forestry, and fishing activities more broadly, will be published in FAOSTAT in the fall of 2014, and will enable broad analysis of food security issues. In the meantime, FAO will look at how to address the remaining challenge of

¹Von Cramon-Taubadel, S., et al. (2009). *Investment in Developing Countries' Food and Agriculture: Assessing Agricultural Capital Stocks and their Impact on Productivity*. Expert Meeting on How to feed the World in 2050, Food and Agriculture Organization of the United Nations.

²FAO (2012). *The State of Food and Agriculture, 2012*, p 11.

improving the measurement of agricultural machinery and equipment, which is a key input into productivity research and analysis.

B. Government Expenditures on Agriculture

7. Government expenditures data are necessary to measure investments in the types of large-scale, socially beneficial, and environmentally sustainable investments only possible by governments.³ Domestic government expenditures on agriculture (GEA) data are obtained through an FAO questionnaire, developed in collaboration with the International Monetary Fund (IMF), which is responsible for the international standards and datasets that measure government financial statistics. FAO launched this questionnaire globally in 2012, requesting details of expenditures on agriculture, forestry, fisheries, and environmental protection, with a breakdown of recurrent and capital expenditures, the latter of which proxies the amount of expenditures for investment purposes.

8. The second annual global data collection is currently underway, and the release of this data in FAOSTAT in the autumn of 2014 will include shares and trends in GEA, the agriculture share of total government spending, and the relative share of domestic and foreign public expenditures in agriculture. This dataset will also provide an 'agricultural orientation index', which measures the agricultural share of government spending relative to the contribution of agriculture to the economy. The agricultural orientation index is higher for countries that place more emphasis on agriculture relative to its contribution to GDP, and this type of index will also be available for all investment financing data.

C. Official Development Assistance to Agriculture

9. Official Development Assistance to Agriculture (ODA) from major bilateral and multilateral donors is an important complement to domestic government expenditures on agriculture. To develop the ODA dataset, FAO is harvesting data from the OECD, which it will complement with internal data, to provide details on the amount and purpose of the assistance, be it agricultural development, fishery services, forestry policy, biosphere protection, food aid or the like. The first comprehensive ODA to agriculture data will be available in FAOSTAT in August 2014, and as in the case of other investment datasets, will provide an agricultural orientation index for ODA that describes the relative importance of agricultural assistance from the perspective of both recipient and donor countries.

D. Credit to Agriculture

10. Private sector financial credit to agriculture is the largest source of investment financing other than producers' equity and savings, and is also important because of its direct and positive correlation with growth in agricultural productivity. To measure this financing source, FAO is developing a dataset on formal credit extended to agriculture using central bank monetary and financial statistics, with the first dataset to be published for about 100 countries in August 2014.

11. Despite the importance of this data, many countries either do not collect or do not publish data on credit to agriculture, and many who do collect and publish it use different measures, with some excluding forestry and fisheries, and others including only one of these two sub-sectors. This makes international comparisons weaker than consistent measurement would provide. To resolve this data challenge, FAO is working with the European Central Bank and Bangladesh's Central Bank and commercial banks to identify and establish common reporting requirements that could serve as a good practice, and will look to collaborate with other countries and regions to strengthen their available data.

³ FAO (2012). *The State of Food and Agriculture, 2012*.

E. Foreign Direct Investment

12. In the coming year, FAO will work with data from the United Nations Conference on Trade and Development (UNCTAD) to develop a database on foreign direct investment⁴ (FDI) to agriculture, which measures a fourth source of agricultural investment financing when an individual or company in one country establishes, purchases or acquires a business or production in another country. While FDI provides investment financing, it also facilitates trade relations and technology transfer, though in the agricultural sector it can also reflect a host of other factors, including land purchases in response to spikes in food and fuel prices, a desire by countries dependent on food imports to secure food supplies, and speculation. However, “available foreign direct investment data lack sufficient detail and are too aggregated to determine just how much investment in agriculture there has been and what forms it takes.”⁵ This new dataset will attempt to address this gap.

F. Foreign Remittances

13. A fifth source of investment financing comes from foreign remittances, or the money sent to home countries by migrants. In April 2014, the World Bank estimated that developing countries would receive USD 436 billion in foreign remittances in 2014, an increase of 7.8 percent over the 2013 volume of USD 404 billion, and would rise to USD 516 billion by 2016. To put this in perspective, foreign remittances to Nepal are nearly double its revenues from exports; are double Uganda’s revenues from its main export of coffee; and at USD 70 billion for India, the top national recipient of foreign remittances, exceed the USD 65 billion received for its flagship software services export in 2013.⁶ While including this source of financing is essential, FAO faces the challenge of determining the share of foreign remittances to agriculture, as well as the subset that finances agricultural investment.

G. Country Investment Profiles

14. Country-level investment profiles will pull together all the datasets on physical investment in agriculture and its financing sources to provide, through a single portal, a glimpse of the levels and trends in investment, the composition of financing sources, the relative shares of agriculture in total investment, and the agricultural orientation index in the different types of financing. However, the largest source of investment financing – farmers themselves – will be measured only as a residual of investment financing available from other sources, despite the fact that on-farm investments dwarf, by more than three-to-one, all other sources of financing combined.⁷ After establishing the components of Investment Statistics described above, and addressing data gaps and data challenges, measuring self-financing by agricultural producers will be the next key step forward.

III. Strategic Considerations and Proposed Actions

15. Several strategic needs led countries to request that FAO develop a global Agriculture Investment Statistics domain: growing awareness of the importance of investment and its financing composition in increasing food security, agricultural productivity, and real incomes; the importance of data as the evidence base to monitor and evaluate levels and trends in agricultural investment; and the importance in measuring the impact of different investments and policy interventions and in identifying the most effective strategies in creating a climate conducive to investment.

16. Internally, FAO’s new Strategic Framework identified investment statistics as a key evidence base for monitoring and evaluating progress towards its strategic objectives (SOs). As a result, funding

⁴ According to UNCTAD, FDI to developing countries reached a new high of \$759 billion US in 2013, an increase of 18 percent from 2010, though its share of global FDI remained at a historic low of 39%.

⁵ Hallam, David (2009). *Foreign Investment in Development Country Agriculture – Issues, Policy Implications and International Response*, p 3, Paris: OECD.

⁶ World Bank (2014). *Remittances to developing countries to stay robust this year. despite increased deportations of migrant workers, says WB*, <http://www.worldbank.org/en/news/press-release/2014/04/11>.

⁷ FAO (2012). *The State of Food and Agriculture, 2012*.

for this statistical domain comes from two of five strategic objectives (SO): SO1, which contributes to the eradication of hunger, food insecurity and malnutrition; and SO4, which enables inclusive and efficient agricultural and food systems. This will be supplemented by project funding, such as that of the Brookings Institute, to advance its development and improve its relevance.

17. Developing this domain relies on collaboration across organizations to avoid duplication, leverage expertise, and reduce the burden on countries of reporting the same data to multiple organizations. This is a reality that arises from shrinking public resources and from the requests of donors. Towards this end, FAO harvests existing data from other international organizations (IOs), where possible, including the UNSD, the IMF, the OECD, UNCTAD. FAO will also develop indicators and share expertise with other organizations, such as the Brookings Institute in its *End of Hunger Project*, funded by the Bill and Melinda Gates Foundation, which aims to increase policy-makers' interest in developing evidence-based policies toward higher investment in agriculture and food security.

18. Country-level data that enables comparison across time and across countries is essential to provide the comprehensive evidence base that measures the impact of agricultural investments and identifies the most effective investments. Challenges at country level include the absence of available data, even when collected by countries; differences in countries' measurement of the agricultural sector and investment; and the absence of documents to explain what is measured. As in other statistical domains, FAO can play an important role in working with countries to establish common guidelines, good practices and training in data collection, documentation and publication.

19. Two key areas of investment data where member countries have requested assistance or where FAO has identified gaps are Government Expenditures in Agriculture and Credit to Agriculture. For example, FAO is collaborating with the European Central Bank and with the Central Bank of Bangladesh to improve the reporting of data on Credit to Agriculture, and has received requests from the Asia Pacific Region for training on data collecting and reporting on Government Expenditures to Agriculture. Success in creating an internationally comparable investment dataset requires, however, the willingness of countries to adopt and implement these guidelines.

20. Finally, ensuring relevance of these statistics and their indicators is essential to ensure this domain is useful to and used by policy-makers, analysts, researchers and the private sector, including farmers themselves. Towards that end, FAO has formed an internal working group on Investment Statistics, and collaborates with research institutes, such as the Brookings Institute, to develop relevant indicators accompanied by accessible and easy-to-use products, tables, graphs and analysis. Input from countries and national users, however, will be essential to maximize this relevance.

IV. Suggested actions by the Committee

21. The Committee is invited to provide guidance on:

- a) The suitability and relevance of FAO's approach to building a global agricultural investment database and country-level investment profiles.
- b) How to ensure maximum relevance and awareness of the new statistical program and its outputs, including the development and testing of new investment indicators and data products.