

Analytic Guide for an Inclusive Growth Diagnostic (the “productive employment” model)

Introduction and Theoretical Foundations

“USAID’s overarching goal in economic growth is to help partner countries achieve rapid, sustained, and broad-based growth ...(which) is growth that includes all major income groups, ethnic groups and women, and that significantly reduces poverty.”¹

In this paper “broad-based” growth and “inclusive” growth are used interchangeably and are taken to mean the same thing. It does not mean necessarily trying to raise the incomes of the poor faster than the incomes of higher income groups, which is a common definition of “pro-poor growth.” A 2009 World Bank paper makes a subtle distinction:

“Rapid and sustained poverty reduction requires inclusive growth that allows people to contribute to and benefit from economic growth.”² Rapid pace of growth is unquestionably necessary for substantial poverty reduction, but for this growth to be sustainable in the long run, it should be *broad-based* across sectors, and *inclusive* of the large part of the country’s labor force.”³ But in USAID, however, we generally use broad-based and inclusive to mean both across sectors and including all major groups. The inclusive growth approach focuses on increasing productive employment as the primary means of increasing incomes.

There are two important ways to achieve sustained, broad-based or inclusive economic growth that more rapidly increases household incomes and reduces poverty, promotes household food security, and generates domestic monetary demand for domestic goods and services: 1) increasing agricultural production and incomes in rural areas⁴ where smallholder agriculture is still important, and 2) increasing more productive and higher wage non-farm employment, both formal and informal, in both urban and rural areas.⁵

¹ USAID, “Securing the Future, A Strategy for Economic Growth,” April 2008, p. 6

² This statement is in line with the OECD Development Assistance Committee’s policy statement on pro-poor growth. However, a difference between pro-poor and inclusive growth is that the pro-poor approach is mainly interested in the welfare of the poor while inclusive growth is concerned with opportunities for the majority of the labor force, poor and middle-class alike.

³ Ianchovichina, Elena, and Susanna Lundstrom, “What is Inclusive Growth?”, PRMED, World Bank, Feb. 10, 2009, pp. 1-2

⁴ “The rural non-farm population, among which poverty is concentrated, produces non-tradable goods and services, meaning goods for which the only market is local. Farmers spend half their incremental income on the rural non-farm sector (Bell and Hazell 1982, Hazell and Ramaswamy 1991, Mellor 1992, Mellor 1976). Thus, a rise in farm income drives demand for the large, employment-intensive, non-tradable, rural non-farm sector. These relationships are developed in a mathematical form in Mellor and Ranade, Pakistan Development Review 2007; the logic is spelled out in non-mathematical terms and the various coefficients analyzed empirically in Mellor 1976. The earliest development of this relationship is stated in Johnston and Mellor 1961. A full exploration and empirical analysis appears in Haggblade et al. forthcoming.” —From USAID, “Pakistan Food and Agriculture Project: Report to USAID/Pakistan” by Weidemann Associates, Inc., March 2009, page 9 (see references below). Dr. John W. Mellor was a member of this Weidemann team.

⁵ “Employment growth and poverty reduction are two sides of the same coin. The poor are largely laborers. In general, the rural poor earn more from off-farm employment than from their own land. If employment grows more rapidly than labor-force growth, the poor increase their annual employment — and wage rates often rise as well. There is a rich empirically-based body of literature on this topic, including Barrios and Mellor 2006 in Guatemala, Fan et al. 2002 in China, Bhalla 2004 in India, Mellor and Gavian 1999 in Egypt, Mellor and Usman 2006 in Afghanistan, and Haddad and Ahmed 1999 in Egypt.” —*Ibid.*, p. 9

This statement is well-grounded in the theory of economic development.⁶ The essence of the argument is that agriculture and low-income urban and rural informal sector activities are the residual claimants of growth in the labor force because the population of low-income countries is initially concentrated in the agricultural sector, and while many farm families are engaging in local (mostly informal) agribusiness activities and many members of the growing labor force are migrating into urban areas seeking work, the more productive formal industrial and service sectors only absorb the amount of labor for which they can provide productive employment.⁷ Where the traditional agricultural technology is stagnant or growing very slowly and the supply of farmland is fixed, a growing agricultural labor force results in declining returns to labor and lower real incomes per worker (and the much discussed “labor surplus” in the economy). The redundant labor looks for better jobs in the non-farm rural and urban sectors, and those workers who cannot find better jobs wind up either staying on the farm with low marginal returns and low income or in the other “residual” employers, the growing, low-income, rural and urban informal sectors.

Fei and Ranis (1964) develop a ‘critical minimum effort criterion’ to describe the conditions under which more productive⁸ informal and formal-sector employment will grow rapidly enough to absorb a growing share of an under-employed labor force as the basic requirement for a successful transition from a low-income, redundant labor economy to a more productive, higher income one.

The formal sector’s production function, in this treatment, is given by

$$Y_t = A_t K_t^\alpha (B_t L_{Ft})^{1-\alpha}$$

where Y_t , K_t , and L_{Ft} are output, capital stock and employment in the more productive informal and formal sectors, and A_t and B_t are productivity parameters. An increase in A_t shifts the entire production function without imparting a labor-saving or labor-using bias, while increases in B_t capture more labor-using technological change.⁹ The parameter α lies between zero and 1, with a higher α implying more sharply diminishing returns to formal-sector employment.

The critical minimum effort criterion can be stated as

$$\hat{L}_{Ft} > \hat{L}_t:$$

⁶ From the classic Arthur Lewis “Development with Unlimited Supplies of Labour,” *The Manchester School*, May 1954, to John C.H. Fei and Gustav Ranis, *Development of the Labor Surplus Economy*, R. D. Irwin, Homewood, IL, 1964, and John W. Mellor, *The Economics of Agricultural Development*, Cornell University Press, Ithaca, NY, 1966. There have been subsequent refinements and variations on these themes, but the basic theory remains valid for most poor countries with relatively large rural populations and large shares of their labor force engaged in the agricultural and low-income rural and urban informal sectors. NOTE: Both Ranis and Mellor served (at different times) as chief economist of USAID in its early years.

⁷ Adapted from Mellor, 1966, p. 24

⁸ “More productive” is defined in this paper as meaning more productive than the average productivity per worker in the smallholder agriculture and low-income informal economic sectors, described here as the “residual” employers of those who cannot find better jobs elsewhere

⁹ With “more labor-using technological change” meaning investment in activities and the adoption of technical processes that use relatively more labor than otherwise, thereby generating more productive employment. As will be discussed more below, this usually depends on relative price ratios between factors of production and other investment incentives.

more productive informal and formal-sector employment must grow faster than overall employment. Since labor is available at a constant real wage in terms of formal-sector goods in this analysis¹⁰, the criterion comes down to

$$\hat{L}_{Ft} = \hat{K}_t + \frac{\hat{A}_t + (1 - \alpha)\hat{B}_t}{\alpha} > \hat{L}_t.$$

Higher rates of capital accumulation (\hat{K}_t) and productivity growth (\hat{A}_t), a stronger labor-using bias to technological change (\hat{B}_t), and more slowly-diminishing returns to labor (α) all contribute to increasing the pace of employment creation in the more productive informal and formal sectors, which must exceed the growth rate of the entire labor force for the critical minimum effort criterion (CMEC) to be met. "...no development can be termed successful if the CMEC is consistently violated over time."^{11,12}

To paraphrase John Mellor, in early stages of development, when the proportion of the labor force in smallholder agriculture and the low-income rural and urban informal sectors is large, it is unlikely that the more productive (formal and informal) sectors can expand rapidly enough to absorb all the incremental growth in the labor force. Thus we would expect the size of the residual labor force in smallholder agriculture and other low-income activities to grow for some time even though its proportion of total employment may be declining.

The rate of growth of the residual low-income labor force (L_{Rt}) is:¹³

$$\hat{L}_{Rt} = (1 - \theta_{Ft})^{-1}[\hat{L}_t - \theta_{Ft}\hat{L}_{Ft}].$$

where $\theta_{Ft} = L_{Ft}/L_t$ is the share of more productive informal and formal-sector employment in the total labor force.

The residual labor force in low-income activities will continue to grow at a rate equal to the growth rate of the entire labor force minus the growth rate of productive non-farm employment times its share of total employment divided by the residual labor force share of total employment. If the residual low-income employment (L_{Rt}) is large relative to more productive employment (L_{Ft}), it will continue to grow substantially in absolute terms even with rapid growth of the higher income non-farm sector, and even though its share of total employment is slowly declining. Therefore, if there is to be any substantial decrease in poverty among low-income smallholder farmers and rural/urban informal sector workers in the near future, it will have to come from improvements in the technology of farm and informal sector

¹⁰ The marginal product of labor is $MPL_t = (1 - \sigma)A_t B_t^{1-\alpha} (K_t/L_{Ft})^\alpha$, which profit-maximizing employers equate with the formal-sector real wage. The latter is equal in equilibrium to the opportunity cost of under-employed labor, which is assumed to be constant over time in terms of formal-sector goods. Holding the formal-sector MPL constant in the face of capital accumulation and technological change, we get $\hat{L}_{Ft} = \hat{K}_t + ([\hat{A}_t + (1 - \alpha)\hat{B}_t]/\alpha)$.

¹¹ "It is helpful to think of all population increase occurring in the subsistence sector and being allocated from there to industrial employment. The physical location of the redundant labor force and of additions to it are clearly immaterial."

¹² Adapted from Fei-Ranis, 1964, pp. 121-122

¹³ If $L_t = L_{Ft} + L_{Rt}$, then $\hat{L}_t = \theta_{Ft}\hat{L}_{Ft} + \theta_{Rt}\hat{L}_{Rt}$ and $\theta_{Rt}\hat{L}_{Rt} = \hat{L}_t - \theta_{Ft}\hat{L}_{Ft}$
Solving for $\hat{L}_{Rt} = \hat{L}_t(1 - \theta_{Ft})^{-1} - \theta_{Ft}\hat{L}_{Ft}(1 - \theta_{Ft})^{-1} = (1 - \theta_{Ft})^{-1}[\hat{L}_t - \theta_{Ft}\hat{L}_{Ft}]$

activities to increase their productivity and the real incomes they produce where they are, in addition to speeding up the transitional generation of more productive commercial farm and non-farm employment.¹⁴

A comprehensive, inclusive growth diagnostic (IGD) approach must first examine whether there is significant unexploited potential for increasing the productivity of smallholder agriculture and/or rural/urban informal non-farm activities (R) and/or for the more rapid generation of more productive and higher wage informal and formal sector employment (\hat{L}_{Ft}), and, if they exist, analyze why that potential is not being realized. It must analyze whether there are important constraints on the non-farm employability of the workforce and/or significant constraints imposed by the policy incentive structure that discourage investment in more labor-intensive, employment-oriented activities (\hat{B}_t).

The original Hausmann, Rodrik & Velasco (HRV) Growth Diagnostic (GD)¹⁵ methodology used, as an example, a model that started with the level of private investment as the objective function. Quoting from the “Doing Growth Diagnostics in Practice: A ‘Mindbook’:¹⁶

“As a starting point for a diagnostic, HRV present a decision tree (Figure 2) motivated by a simplified growth model that allows for several types of distortions. An important property of many growth models, including HRV, is that in a balanced growth path, the rate at which the economy grows (which equals the rate at which assets are accumulated) is a function of the difference between the expected return to asset accumulation and the cost of those assets as seen by the private agents which are accumulating those assets. The greater the gap between the expected return to asset accumulation and acquisition cost, the greater the investment effort. This can be seen in the following expression:

$$g = \frac{\dot{c}_t}{c_t} = \frac{\dot{k}_t}{k_t} = \sigma[r(1-\tau) - \rho]$$

“Where g is the rate of growth of the economy, c and k are the levels of consumption and capital per capita, r is the expected social return to investment, $(1-\tau)$ is the proportion of r that is privately appropriable and ρ is the opportunity cost of funds. The greater the gap, the bigger the incentive to accumulate and the higher the growth rate.

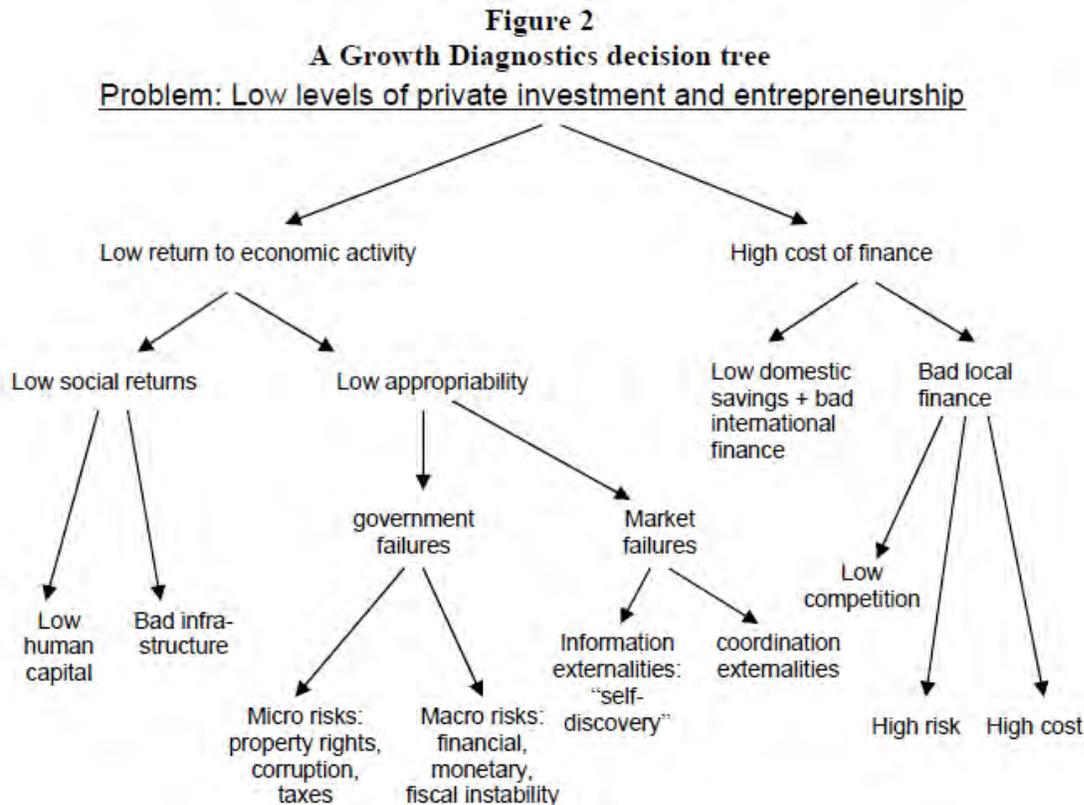
“This model leads to a very clear first cut at the potential nature of constraints: countries might not be growing either because the expected private return of asset accumulation $r(1-\tau)$ is low or because the cost of funds ρ is high. It is this condition that begins the HRV decision tree. It implies two potential scenarios: those in which there are plenty of privately profitable investment opportunities but few financial resources to carry them out (high ρ) or those in which private expected return rates to carrying them out are low (low $r(1-\tau)$). This first distinction can then be further decomposed into more precisely refined constraints: is the low return problem one of low social returns r or one of low expected appropriability $(1-\tau)$? One could then decompose further and ponder what could be the cause of each. Equally, on the

¹⁴ Adapted from Mellor, 1966, p. 25

¹⁵ Hausmann, Ricardo, Dani Rodrik, and Andrés Velasco, “Growth Diagnostics,” John F. Kennedy School of Government, Harvard University, October 2004, revised March 2005

¹⁶ Hausmann, Ricardo, Bailey Klinger, and Rodrigo Wagner, “Doing Growth Diagnostics in Practice: A ‘Mindbook’,” CID Working Paper No. 177, Center for International Development, Harvard University, September 2008, pp. 21-22

right hand side of the decision tree, one could ask, what lies behind the high cost of finance? Is it a lack of aggregate savings because of low domestic savings and lack of additional access to foreign savings or is it one of poor intermediation?”



The classic GD model is designed to explore constraints to increasing private investment and entrepreneurship, which can arise from low private returns or a high cost of financing. It does not explicitly consider the pattern of economic growth and needs to be augmented in an IGD to consider 1) whether the policy matrix within which investment is undertaken promotes employment generation vs. more capital-intensive activities (as per the \hat{B}_t , labor-using propensity discussed above), 2) whether it provides equal access to productive assets and employment by women and disadvantaged population groups, and 3) to consider constraints to small-scale agriculture and rural/urban informal non-agriculture activities, some of which are qualitatively different than those affecting commercial agriculture and non-agricultural formal sector activities. That is, the classic HRV GD model focuses on the factors that generate economic growth and aggregate incomes, but not on the pattern of growth across an economy. As such, it does not target sustainable, broad-based economic growth. However, as Hausmann, Klinger & Wagner point out in their “Mindbook,” the same HRV GD methodology can be used for other economic issues.¹⁷ The World Bank has pioneered an “Inclusive (or Shared) Growth

¹⁷“Implicit in a discussion of the constraints to growth in a country is a particular model of the economy. It is important to note that many of the methodological principles in doing growth diagnostics...are not dependent on the precise nature of the model. Indeed, these principles can be applied to economic issues other than growth, such as the causes of low levels of education, rampant informality or high inequality.” –Ricardo Hausmann, Bailey Klinger, and Rodrigo Wagner, 2008, p. 20

Analytics” approach that includes constraints on the employability of the workforce (see <http://go.worldbank.org/677R9R65J0>), but it includes neither constraints on increasing smallholder agricultural productivity nor constraints on more productive employment generation imposed by the policy incentive structure. USAID must adopt a more comprehensive IGD to help its client countries achieve more rapid, sustained, broad-based economic growth and poverty reduction and promote household food security. This analytic guide outlines such an approach.

An IGD analysis can help identify the key, “binding” constraints to more rapid, sustainable broad-based growth. It should be undertaken where overall growth rates are unsatisfactory or where satisfactory growth is not accompanied by significant reductions in poverty among all major income and ethnic groups, for both men and women in each group, due more to their own productive employment than to income transfers.

With sufficient time and LOE resources the USAID analytical team could pursue its own original analysis through the entire analytical “decision tree,” narrowing the effort to those analytical nodes with the greatest potential for significant gains in productive employment and incomes. However, given scarce resource and time constraints, a “lite” IGD, meaning one in which extensive, time-consuming original analysis is not undertaken for each analytical node, can still be informative and useful, especially where other reputable and fairly recent research is available to draw on (and update as needed), as it now is for most USAID-assisted countries. The IGD analytical guide is simply a comprehensive and methodical way of walking through first, a series of questions to identify the areas of greatest likely potential for improvement in the objective function (in this case, “rapid, sustained, broad-based economic growth”), and second, an analysis of likely constraints to better performance in those areas to identify the more important (“binding”) ones. This can usually be done with secondary sources fairly quickly, and more in-depth analysis of a few key constraints undertaken as time and analytical resources permit.

The rest of this analytic guide is divided into three phases:

PHASE ONE: Economic Performance and Potential for higher productivity and household incomes 1) in smallholder agriculture and in rural and urban informal sector activities and 2) in more productive non-farm employment

PHASE TWO: More in-depth analysis of the potential for increased productivity and incomes in smallholder agricultural production and in rural and urban informal sector activities, if appropriate.

PHASE THREE: More in-depth analysis of the potential for faster growth of more productive non-farm employment, as appropriate

SUBSEQUENT TO THE IGD: More in-depth analyses by specialists of key constraints identified and the importance of political economy analysis of recommended reforms and/or other remedies to assure success.

PHASE ONE: *Economic Performance and Potential.*

Following a literature review and a thorough economic profile and recent economic history of the country in question, the analyst should choose an analytical branch or collection of branches that best address the topline concerns for in-depth analysis.

The economic profile should include the identification of the country's current growth state, its most recent transition from one state to another and the causes of that transition. Lant Pritchett and Preya Sharma (which the reader should see for a good discussion) listed these growth states as:¹⁸

- Poverty trap (growth rate near zero, with very low GDP/capita)
- Economic decline/growth collapse (growth rate negative, at any income level)
- Stagnation (growth rate near zero, from small negative to small positive, income level above poverty trap)
- Modest growth (at any income level)
- Rapid growth (at any income level)
- Steady growth (OECD levels of GDP/capita)

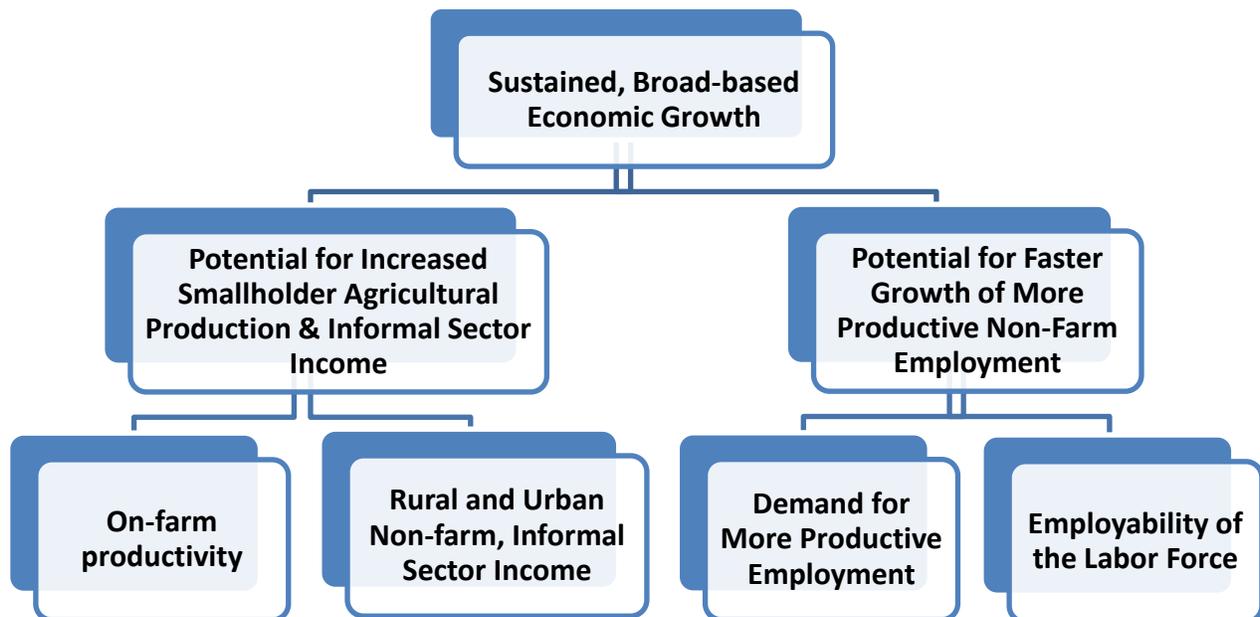
The analysis should begin by summarizing historical and recent economic performance. This would include growth rates and the sector distribution of growth, extreme and relative rates of poverty and their reduction among all major income and ethnic groups, distinguishing poverty rates among men and women in each group if the data is available, employment, growth of investment and savings, macroeconomic performance with special attention to inflation, debt and government deficits, government revenue and its composition, money supply growth and its composition, real interest rates and interest rate spreads, government expenditure and its composition, private investment and savings, and the external sector – exports, imports, the exchange rate, international debt, foreign aid, foreign investment, and remittances and other transfers, and so on. Subsectors of particular interest in terms of the number and sex of workers they employ or their potential for future employment generation can be identified and given close attention in the subsequent analysis of specific nodes in the constraints analysis, especially those pertaining to the labor-intensity of production and the inclusiveness of women and disadvantaged groups. (See the Appendix for “A Disaggregated Growth Diagnostic” analytic guide.)

The analysis should then consider the relative potential for increasing productivity per hectare in small-scale agriculture and incomes per worker in rural non-farm activities and in urban informal sector activities that employ the residual low-income labor force (L_{Rt}) and/or the potential for faster generation of more productive, higher wage urban employment (\hat{L}_{Ft}). While large-scale commercial farming can be considered along with other (mostly) formal economic sectors in the classic HRV part of the IGD, the small-scale agriculture prevalent in most developing countries is subject to constraints and potential remedies that are quite different and distinct from those facing the other sectors and must be considered separately. Some of these will be shared with commercial farms, but smallholders face additional

¹⁸ Pritchett, Lant, and Preya Sharma, “Implementing Growth Analytics: Motivation, Background, and Implementation,” Prepared for DFID Growth Analytics Training Workshop, Sept 4-5 2008, pp. 21-27

constraints related to the risks and transactions costs that they face, in addition to facing a complex situation regarding selling their product when they are producers, consumers, and often buyers of the food commodities that they are farming. Large commercial farms, as well as formal sector agribusiness firms, can be an important part of the marketing and technology systems that determine smallholder productivity, access to information and inputs, and access to higher value output markets. Attention to the incentives and conditions faced by formal sector agribusiness firms, including large commercial farms, will also be important in understanding some of the constraints to growth faced by smallholder agriculture.

Increasing productivity in a small farm and informal sector environment often requires public funding for research and extension services, rural infrastructure and local market facilities as well as a market-oriented policy environment, as the individual farmers and informal sector small-scale businessmen and women cannot sustain such costs by themselves. It would also be difficult, in most cases, to identify a single “binding constraint” to the achievement of potential improvements in small-scale agriculture, since normally there are a number of deficiencies that must be overcome for the potential to be realized.¹⁹ The lack of small business advisory and marketing services and finance facilities that cater to micro, small and medium scale enterprises, rural and urban, formal and informal, might pose a constraint to increasing their productivity and incomes.



¹⁹NOTE: The potential for increased rural non-farm economic activities is derived from the potential for increased farm income, through the rural income multiplier effect described above in footnote 1, so the latter would generally be a good indicator of the former as well.

I) Smallholder agricultural production and rural and urban, non-farm, informal sector incomes (L_{Rt}).

Analyze the potential for productivity and income gains in small-scale agriculture and rural and urban non-farm informal sector economic activities:

Q. 1) Do small-scale agriculture and its associated rural economy employ a large proportion of the workforce (as self-employed, paid and/or unpaid labor), say, larger than the urban sectors of the economy?

Q. 2) Is the value-added per worker in agriculture below that of comparator countries?

Q. 3) Are current average yields per hectare of the main crops, livestock, dairy and/or fisheries comparable with best practices on the more progressive domestic farms, with those of domestic agricultural research stations, or with those of other countries with similar physical and climatic characteristics, or are they well below those yields?

Q. 4) Is there much potential for switching from basic grains to higher value crops such as horticulture?

Q. 5) Is agribusiness associated with smallholder agriculture efficient and productive? Is it mostly in the formal sector? Does it help small farmers improve yields and product quality and reach good markets?

Q. 6) Is informal sector (or “vulnerable”)²⁰ employment large as a percentage of total employment? Are labor productivity and incomes significantly lower in the rural and urban informal sectors than in the formal sectors?

If the answers to the first two questions are yes and if the yield gap per hectare is large, and/or if the answer to the fourth question is yes, this would imply significant potential for improvement and an agriculture constraints analysis is in order. If the answers to the 5th set of questions are negative the potential for improving agribusiness related to smallholder crops should be considered. If the answers to the 6th set of questions are positive, the analyst should consider constraints against increasing productivity and incomes in the rural and urban informal sectors. The potential gains from breaking key constraints to increasing productivity, moving to higher value crops, processing and marketing farm products could be enormous, especially in view of the rural employment and income multiplier effect of increasing farmer incomes.²¹ The value of potential gains can be estimated using existing price and production data and can be converted into full-time equivalent (FTE) job growth by subtracting imported inputs and dividing by the average farm wage rate. The potential gains from switching to higher value crops would be related to the possibilities for import competition, predictable growth in domestic

²⁰ If national labor surveys do not distinguish between formal and informal employment, the “vulnerable” employment rate as reported in the World Bank World Development Indicators is useful as a proxy. It combines the self-employed and unpaid family workers.

²¹ See footnote 1 above.

demand and potentials for export to foreign markets. These potential gains can be compared, at least in general terms, to potentials for employment and income growth in the formal sectors of the economy to determine if the analysis should focus on the smallholder agricultural and informal sectors and look for key constraints in IA) on-farm productivity and IB) rural and urban informal sector income.

If the answer to the first question is no or the yield gap is small, and the answer to the third question is no, and the answers to the fourth set of questions are positive, this would imply less potential for improvement and in smallholder agricultural production, and the analysis should focus on constraints to improvement in agribusiness, rural and urban informal and formal sector non-farm employment-oriented activities.

2) More productive, higher wage non-farm employment (\hat{L}_{Ft}).

Analyze the past performance and potential for faster growth of employment in the more productive, private economic sectors (including commercial farms, agricultural byproduct processing & marketing):

Q. 1) What proportions of the female labor force and the male labor force are employed in the more productive formal (and informal?) sectors of the economy vs. the proportion in the less productive informal sector?

Q. 2) Is the average annual growth rate of private formal sector employment²² (and more productive informal sector employment, if it can be measured) significantly higher than growth of the total labor force? (If possible, the answer to this question should consider only those employees with regular contracts in formal sector firms, and not temporary (or informal) employees without contracts, whose wage rates are normally close to those of the less productive informal sector.)

Q. 3) Is the proportion of women workers in vulnerable employment significantly higher than that of men?

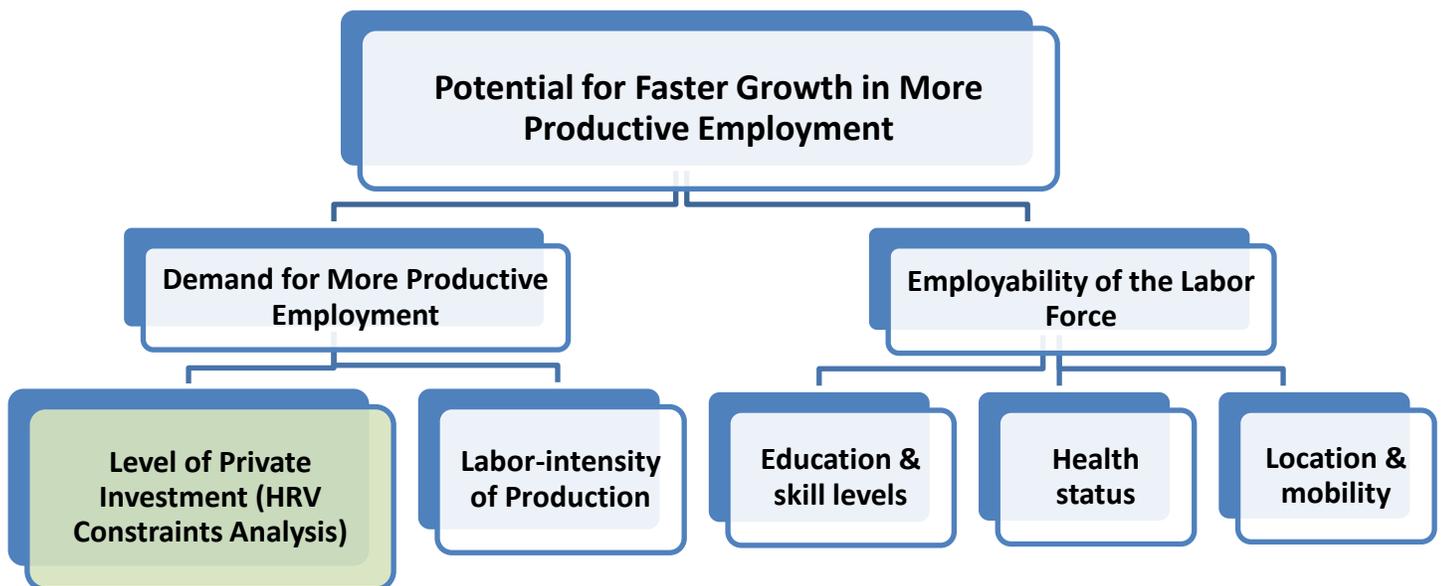
If formal sector employment in the private sector is relatively small and not growing, on average, much faster than the labor force itself, the economy is probably falling behind in providing more productive jobs for the non-agricultural workforce, unless the informal sector is picking up the slack with more productive, higher wage activities. The non-agricultural workforce typically grows faster than the labor force itself as workers migrate from rural to urban areas in search of jobs and labor force participation rates increase (particularly for women). The need for more productive employment generation (which includes more productive employment in both formal and informal sectors, if the latter can be identified and measured) can be calculated as the difference between the recent historical average and a realistic, acceptable target growth rate. If women are systematically excluded from formal sector employment the society will suffer the loss of their contributions to economic growth, like a heavy wagon being

²² Formal sector employment as a proportion of the total labor force is usually (if reliable data is available) a good indicator of the economy's ability to provide more productive and remunerative jobs for its workers, even though some informal sector activities can also be more productive (but for which data are not normally available). This indicator was used in the UNDP's 2010 Human Development Report, but is no longer generally available. The World Bank World Development Indicator "vulnerable employment" as a percentage of total employment, which includes self-employment and unpaid family workers, can be used as a proxy for informal employment, and the inverse of this is a proxy for formal employment.

drawn by only one horse instead of two, not to mention the equity concerns that would imply. If the differences are significant, an employment constraints analysis should then look at 2A) the demand for more productive employment and 2B) the employability of the labor force.

If the differences are small or non-existent, the economy could be doing fine with no significant constraints to further employment-oriented, broad-based growth, unless an even higher growth rate target is considered desirable and within the realm of possibilities.

When looking for key constraints in the faster growth of more productive employment in more productive economic sectors, if chosen for further analysis, there are two major areas of concern: 1) the demand for more productive employment and 2) the employability of the labor force in the more productive economic sectors—or, in other words, the supply of healthy workers who have the education and skill levels needed by more productive (mostly formal sector) activities and are located near, or can easily travel to, where they are needed.



2A) Private Sector Demand for More Productive Employment

Q. 1) Is the level of gross capital formation²³ at satisfactory levels (say, 25-30% of GDP)?

Q. 2) Is more productive (formal sector or urban) employment²⁴ growing, on average, faster than the growth of the total labor force?

²³ While the emphasis is on private sector investment, gross capital formation data are often more readily obtained. They combine public and private sector investment rates.

²⁴ Formal sector employment is used here as a proxy for more productive employment, which can also occur in the informal sector but cannot normally be measured there. In fact, as a proxy for formal sector employment itself, where it is not routinely measured, one can use the inverse of the World Bank World Development Indicator (WB WDI) data for “vulnerable employment,” which is the sum of self-employment and unpaid family labor.

Q. 3) Is there evidence that informal sector and vulnerable employment is less productive and growing faster than the labor force?

Q. 4) Is the proportion of women in formal sector employment significantly less than that of men (or the proportion of women in vulnerable employment significantly more than that of men)?

Q. 5) Are female wages significantly less than male wages in key economic sectors?

Q. 6) Are there more female workers than male workers in sectors that are less productive per worker and pay lower wages?

If the answers to the first two questions are positive and the third negative, there are probably no serious constraints inhibiting new investment and productive non-agricultural employment generation. But if the answer to the first question is negative, the analyst should look for key constraints in private returns to economic activity and the cost of finance following the standard HRV approach.²⁵ If the answer to the second question is negative and the answer to the third question is positive, the analyst should determine whether and how the policy environment is biased against more labor-intensive activities and more productive employment generation and what factors inhibit the faster growth of the formal sector.

If answers to questions 4, 5 and 6 indicate a labor market that is less advantageous for women than for men, the analyst should seek the reasons why the feminine half of the workforce is not being used to its fullest potential.

The employment orientation of the policy environment must be considered outside the constraints analysis pertaining to private returns to economic activity, since private firms can be profitable operating within an environment that artificially raises the relative cost of labor in the formal sector and/or reduces the cost of capital, providing financial incentives that discourage employment generation, and that is thus inimical to broad-based economic growth. *This is not an argument to bias investment incentives against capital-intensive activities, if they are appropriate in a particular industry, but rather to remove any policy bias against the use of more labor.*

The informal sector comprises a huge proportion of the economy in many developing countries and is composed of “self-employed” small- and medium-scale farmers and other entrepreneurs and their employees (or unpaid family workers). These firms typically grow slowly, have limited access to credit and employ few workers at very low wages; and they generally avoid paying some taxes. They and their workers, often a large proportion of the total labor force, are not fully protected by labor laws. Such firms owned by women are often in even worse situations than those owned by men. Few of them are able to make significant gains in productivity due to limited investment resources and technical skills. They are often widely dispersed, isolated and lack organization. To the extent such firms—the informal self-employed and their workers— can be brought into the formal sector of the economy or replaced by new formal

²⁵ Much of the following discussion about private returns to economic activity and the cost of finance has relied on the Hausmann, Klinger and Wagner, “Doing Growth Diagnostics in Practice: A ‘Mindbook’,” 2008, to which the reader is referred for a more detailed discussion of the basic HRV methodology.

sector firms, they can more readily access credit and technology to increase their productivity, the entrepreneurs' own incomes and their employees' wages. Even in those countries where some informal sector activities can be considered fairly productive, the long-term success and sustainability of broad-based economic growth will be enhanced if more economic activities are brought into the formal sector, where they have better access to credit and modern technology and contribute more to the fiscal health of the public sector.

Policies that can support this process include those that:²⁶

- 1) Foster competition;
- 2) Reduce the burden of bureaucracy and government corruption;
- 3) Realign incentives in the public sector;
- 4) Move towards labor regulations that promote labor mobility and provide support to workers in periods of transition;²⁷
- 5) Enhance the productivity of informal workers through training and skills upgrading; and
- 6) Reform existing social insurance systems and introduce new instruments for coverage extension.

2B) Employability of the Workforce:

While this section may appear redundant with the human capital node in Phase Three below, it is different in that while the unavailability of sufficient human capital may not pose a serious constraint to private investors in general, it may limit the employability of particular ethnic or low-income groups or of women and therefore inhibit the achievement of inclusive, broad-based growth as defined on page I.

Q. 1) Do enterprise managers find it difficult to recruit workers with basic literacy and other basic skills?

Q. 2) Do large enterprises import mid- and upper-level managers and certain technical skills from abroad?

Q. 3) Does rapid population growth make it difficult for education and health services to keep up with the needs for them?

Q. 4) Are some diseases or is malnutrition so endemic as to reduce the productivity of the workforce?

Q. 5) If many qualified workers are un- or underemployed, do prospective employers nevertheless find it difficult to recruit workers where they are needed?

²⁶ World Bank, "Striving for Better Jobs: The Challenge of Informality in the Middle East and North Africa Region, Overview," September 2011, pp. vii-viii

²⁷ Labor migration is often a gender issue. Men and young single females are often more easily able to migrate than women with children. On the other hand, culture and/or regulations in some countries restrict the movements of even single women with no children.

Q. 6) Is the labor force participation rate of women significantly less than that of men?

Q. 7) Are the literacy, education and skill levels of the workforce less than adequate for modern economic activities? Are women able to achieve the same education and skill levels as men?

Q. 8) Are there significant differences in the answers to these questions among different ethnic or gender groups or populations in different geographic regions of the country?

If the answer to any of these questions is positive, the analysis must consider the factors affecting the employability of the labor force, as appropriate, to determine whether any of them are key constraints to more productive employment generation for all ethnic, gender and low-income groups.

PHASE TWO: *More in-depth analysis of the potential for increased smallholder agricultural production and rural and urban non-farm informal sector_(L_{Rt}) income, if appropriate.*

Look for key constraints in the growth of small-scale agricultural production and rural and urban non-farm informal sector incomes, if chosen for further analysis in Phase One because of its potential for improvement. The agricultural part of the constraints analysis pertains mostly to small-scale agriculture, which predominates in many, if not most, developing countries in terms of the number of households involved. Many (though not all) of the constraints that might affect larger scale commercial farms would generally be the same as those for the growth of productive employment in the more productive (mostly formal) economic sectors dealt with in Phase Three, below. Many of the constraints affecting productivity on small farms and related remedial measures are fundamentally different than those that might affect rural and urban non-farm informal sector activities, but both sets of constraints may require public sector interventions that smallholder farmers and self-employed businessmen and women themselves cannot afford to undertake. Growth diagnostics must therefore analyze constraints to increasing the productivity of small-scale agricultural and rural and urban non-farm informal sector activities separately. Furthermore, to the extent possible, the analysis of smallholder agriculture and rural and urban non-farm informal sector activities should be disaggregated by gender, distinguishing plots and enterprises owned by males/females, the division of labor on male/female plots, which labor is paid/unpaid, etc. This is necessary to disentangle welfare impacts and gender-differentiated poverty implications. Women smallholders may face an additional set of constraints that men don't face – for instance, in not being reached by extension workers, in not being able to access credit markets, in not being able to marshal labor (especially hired labor during peak seasons), etc.²⁸

The individual analytical nodes in this section parallel some of the nodes in the classic HRV analysis, but are simply stated in terms more familiar to agricultural specialists. Both the on-farm productivity and rural and urban non-farm informal sector_nodes include access to credit

²⁸ A valuable resource in this regard is the recent *Roadmap for Women's Economic Empowerment* by Mayra Buvinic et al.

at reasonable, market rates of interest (related to the HRV cost of finance), specific rural infrastructure, government adequacy in providing agricultural research & extension and appropriate market and pricing policies, plus for on-farm productivity, appropriate land tenure and land market policies, and for agribusiness and other informal activities, market information about higher value products. These production inputs have several characteristics that distinguish themselves from most urban commercial activities in that 1) farmers and small agribusinesses cannot provide them for themselves, 2) they are highly complementary and require coordination of supply and instructions for farmers, 3) their productivity will vary from place to place due to physical, cultural and economic conditions, requiring careful planning, 4) some of them will already be available in some locations while others will not, and providing the missing inputs in those situations could have strong positive results, and 5) the resources required for particular inputs are not readily transferable to the others.²⁹

I A) On-farm productivity

I Aa) Agricultural research & extension services

Q. 1) If higher yields or higher value crops are being obtained in other countries with similar climate conditions, are local research stations able to adapt new seed/plant varieties to local conditions?

Q. 2) If yields are low and better technology, seeds or higher value crops or livestock products exist in-country, are small farmers privy to that information?

Q. 3) Do farmers have access to appropriate commodity standards and sanitary and phyto-sanitary (SPS) information for export quality produce?

Q. 4) Do women farmers have as much access to better technical information, seeds, etc. as do men?³⁰

If the answers to these questions are negative, the effectiveness of agricultural research and extension services may comprise key constraints to more productive agriculture. In some countries agricultural extension agents may not be reaching women farmers as easily as men farmers. Further analysis by agriculture experts can estimate the costs and potential benefits of breaking these constraints.

I Ab) Access to credit for farm inputs & capital improvements

Q. 1) Can the average farmer, including women farmers, obtain credit for capital improvements, inputs, and other operating expenses at reasonable market interest rates (rather than at usurious rates)?

²⁹ See Mellor, 1966, pp. 231-234

³⁰ There is burgeoning literature on gender differentials in on-farm productivity. This approach is akin to the classical approach of the gender wage differences literature. Decomposition methods are used to determine to what extent the differences in productivity are explained by: (i) gender disparity in the levels of determinants of production (e.g. differential access to productive inputs, technology, training, or individual characteristics of land managers); and/or (ii) gender inequality in the returns of those determinants. See recent papers by Markus Goldstein and colleagues.

Q. 2) Can local vendors obtain credit for stocking improved inputs in sufficient quantities for local needs?

If the answers to these questions are positive credit facilities would seem to be operating satisfactorily. If negative there may be some credit constraints that should be investigated further to see how serious they are.

I Ac) Rural infrastructure for irrigation and farm-to-market roads

Q. 1) Are major irrigation facilities, if any, functioning efficiently and effectively for all farmers in their service areas?

Q. 2) Do adequate farm-to-market roads exist in major production areas and are they well maintained?

If the answer to either of these questions is negative, analysts should consider whether national and local fiscal and technical capabilities are adequate for construction, management and maintenance of such productive infrastructure, or whether this might comprise a key constraint to increasing agricultural productivity and rural income.

I Ad) Land tenure and land markets

Q. 1) Is there a viable land market for secure investment in both agriculture and rural non-farm economic activities?

Q. 2) Do women have the same inheritance and land ownership or tenure rights as men?

If the answers to these questions are positive land tenure and land markets would seem to be operating satisfactorily. If negative there may be some land tenure and market constraints that should be investigated further to see how serious they are.

I B) Rural and Urban Non-Farm Informal Sectors, including the processing and marketing of farm products

Many if not most rural agribusiness activities may be in the informal sector, operating at relatively low productivity and generating low-incomes for both the business owners and their employees, if any. In this aspect they share certain likely constraints with urban informal sector operators. However, rural agribusiness activities are closely related to the on-farm production activities they support and like them face some constraints that are qualitatively different from those facing their urban informal sector counterparts.

I Ba) Market and pricing policies

Q. 1) Are domestic prices for key agricultural commodities significantly different than world market prices (fob or cif, as appropriate for tradable products), after allowing for transport costs?

Q. 2) Are agricultural products or inputs being smuggled into other countries or domestic regions for higher prices, or from other countries because their prices are lower?

Q. 3) Can the average farmer obtain correct fertilizer formulations and certified seed in sufficient quantities at world market (CIF) prices?

Q. 4) Can farmers sell their products at prices that represent reasonable shares of retail market prices?

Q. 5) Do farmers have easy access to reliable and timely market price information?

Q. 6) Can farmers and local middlemen easily process, store and transport agricultural products to obtain better prices for their goods?

If the answers to questions 1 and 2 are positive and/or to questions 3 through 6 are negative, government policies may constitute key constraints to growth in agriculture, such as price controls, restrictions on agricultural exports or on moving and selling agricultural commodities from one region of the country to another, on private storage or on the free marketing of agricultural products, or other market interventions. Government subsidies on particular inputs, such as on fertilizer for staple grains and/or tariffs on staple grains can skew production away from higher value crops that would provide more productive employment and income. Subsidies and price controls may result in the smuggling of inputs or products from lower-cost markets or to higher-return markets. Reforms of price controls, subsidies and market restrictions are not costly to undertake, if the authorities are willing and politically able to make the effort, but an insightful political economy analysis would be needed to understand how to proceed against the inevitable opposition to change.

I Bb) Availability of information about good business practices, market trends, potential competition and contacts with higher value markets

Q. 1) Are farmers and other local entrepreneurs aware of and do they have contacts with buyers in markets for higher value products?

Q. 2) Do micro and small-scale formal and informal, rural and urban entrepreneurs have access to quality business advisory services that can help them improve their productivity and profit margins?

Q. 3) Do micro and small scale entrepreneurs have access to market trends in demand for their products, domestic and international?

Q. 4) Do these entrepreneurs understand the competition they face from more sophisticated firms producing similar products or services and how to meet that competition?

Q. 5) Do women entrepreneurs and/or managers face no greater difficulties in these areas than do their male counterparts?

If the answer to any or all of these questions are negative, then there may be significant deficiencies in communication mechanisms for such information and personal contacts. Small business advisory services can sometimes help small entrepreneurs improve their efficiency and profits.

I Bc) Rural and urban infrastructure for transport, electric power, storage, markets, and communication

Q. 1) Do the costs of transporting farm and other products to major markets differ markedly from one region or locality to another, after accounting for distance?

Q. 2) Do suitable market facilities exist at local levels for farm products and other locally produced goods and services?

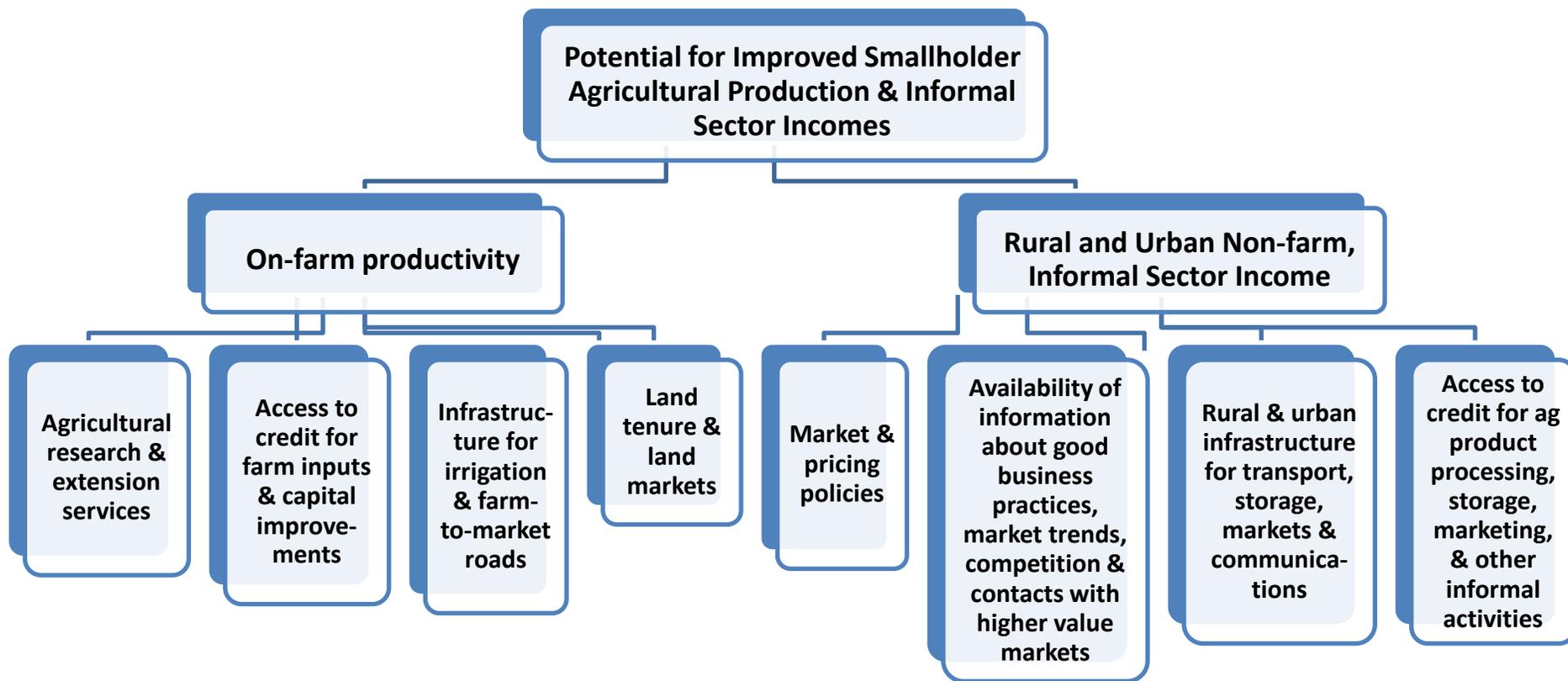
Q. 3) Is the proportion of the harvest damaged in storage (post-harvest losses) relatively small?

Q. 4) Can farmers find storage facilities to allow them to postpone selling until prices are higher, so they can avoid having to sell for lower prices at harvest time?

Q. 5) Do adequate cold chain facilities exist to get perishable products to market without too much spoilage?

Q. 6) Is electric power available at reasonable cost for small agribusiness and other rural and urban informal sector activities?

If the answer to the first question is positive and/or to any of the other questions is negative, analysts should consider whether national and local fiscal and technical capabilities are adequate for construction, management and maintenance of such productive infrastructure, or whether this might comprise a key constraint to increasing agricultural productivity and rural and urban informal sector income.



I Bd) Access to credit for small-scale agriculture product processing, storage, marketing, and for other rural and urban informal sector activities

Q. 1) Can the average farmer and local businessmen and women obtain credit for inputs and other operating expenses for agriculture product processing, storage, marketing and other rural and urban informal sector activities on reasonable market-related terms?

Q. 2) Are most rural and urban businesses in the informal or formal sector?

If the answer to the first question is positive credit facilities would seem to be operating satisfactorily. If negative there may be some credit constraints that should be investigated further to see how serious they are. If many activities operate in the semi-legal informal sector, the analyst should look at why they are not starting up or moving into the formal sector and the mainstream of the country's economy. Are rural informal entrepreneurs mostly women? What are the incentive or disincentive factors that discourage them from registering and converting to the formal sector to facilitate credit access (among other advantages)?

PHASE THREE: *More in-depth analysis of the potential for faster growth of more productive non-farm employment (\hat{L}_{Ft}), as appropriate:*

The demand for more employment in the (generally more productive) formal private sector (not counting temporary or informal employees) depends on 1) the level of private sector investment and 2) the labor-intensity of production. Analysis of (1) should follow the classic HRV constraints analysis, and (2) looks at various policies that may be unnecessarily biasing investment away from more job creation and toward more capital-intensive production than is warranted by the country's factor endowments.

2Aa) Level of Private Investment (HRV Constraints Analysis)

The original HRV framework is a decision tree that examines the question as to why private investment isn't more robust than it is. At each decision node, there are four heuristic tests that should be applied, if data are available, to distinguish between a binding constraint to growth and one that is not binding (but they cannot all be applied to every question):

First, if a constraint is binding, the "shadow price" associated with that constraint should be high. For example, if limited access to finance is a binding constraint on growth, interest rates should be particularly high compared with those in other countries. This is the main test, the other three are manifestations of it.

Second, a particular constraint is more likely to be binding if relaxing that constraint results in observably faster growth.

Third, private agents should be making efforts to circumvent a binding constraint to growth: if poor access to reliable electrical power is a binding constraint to growth, private firms should be observed investing in electrical generators.

Fourth and finally, the firms that survive in the face of a binding constraint to overall growth should consist disproportionately of those that do not depend on that constraint. For example, in an economy where finance is particularly costly, there will be relatively few firms operating in industries that rely heavily on external finance. Benchmarking the potential constraint with comparator countries or against a desirable value can be helpful, but should be done carefully. A good question to ask is, “For a potential constraint, have other countries with the same quantity of the potential constraint been able to reach higher levels of income?”

One feature of the HRV methodology is to compare the study country’s performance against the performance of a series of comparator countries, generally those with similar levels of income and development and/or which have themselves been successful in achieving rapid inclusive growth. Comparator country data provide useful talking points and can indicate aspirational goals for the country being analyzed. The countries selected for comparison can be different depending on the particular constraint and data availability. But their usefulness is limited. If the comparator countries themselves are also weak in a certain area, the comparison can be misleading. Comparator country information is most valuable when the analysis is in the nebulous area of micro risks. In the absence of a shadow price (for example transport costs), comparators can help the analyst identify potential problems. Questions about cost of finance, infrastructure availability, and taxation, for example, can be informed by good comparators.

2Aai) Private returns to economic activity

Q. 1) Are real lending interest rates relatively low even though the level of private investment is low?

Q. 2) Do wealthy domestic investors tend to purchase government securities (or Central Bank bonds) or buy foreign securities rather than to increase their investments in the local economy?

If the answers to questions 1 and 2 are yes, then either low social returns and/or poor private appropriability of such returns may be the consequence of key constraints.

2Aai 1) Evidence that low social returns could be a binding constraint include a low lending interest rate coupled with relatively low rates of private investment and a lack of investment response to changes in the interest rate. Private investors simply don’t see profit-making opportunities. Two possible causes of this are insufficient human capital to run a business successfully and/or the lack of, or poor condition of, necessary productive infrastructure, both of which could increase costs of operation enough to swamp potential returns.

Human capital: The analyst should look at the education and skill levels of the workforce, disaggregated by sex, whether there is sufficient basic literacy among unskilled male and female labor to support skills training, and whether there is sufficient secondary and tertiary education of males and females to supply mid- and upper-management echelons. Evidence that this could be an important binding constraint on social returns to investment includes relatively high salaries

for those with more education or certain skills, the need to import mid- and upper management from abroad, poor quality of domestic education so that wealthier families tend to send their children to schools abroad, etc. What is the potential for higher returns on investment in certain industries if specific education and skill levels were raised?

Is there inadequate human capital to run a business successfully?

Q. 1) Do entrepreneurs have difficulty finding workers with the required skills, or must they import people with managerial and technical skills from abroad?

Q. 2) Do employees with certain skills command relatively high salaries?

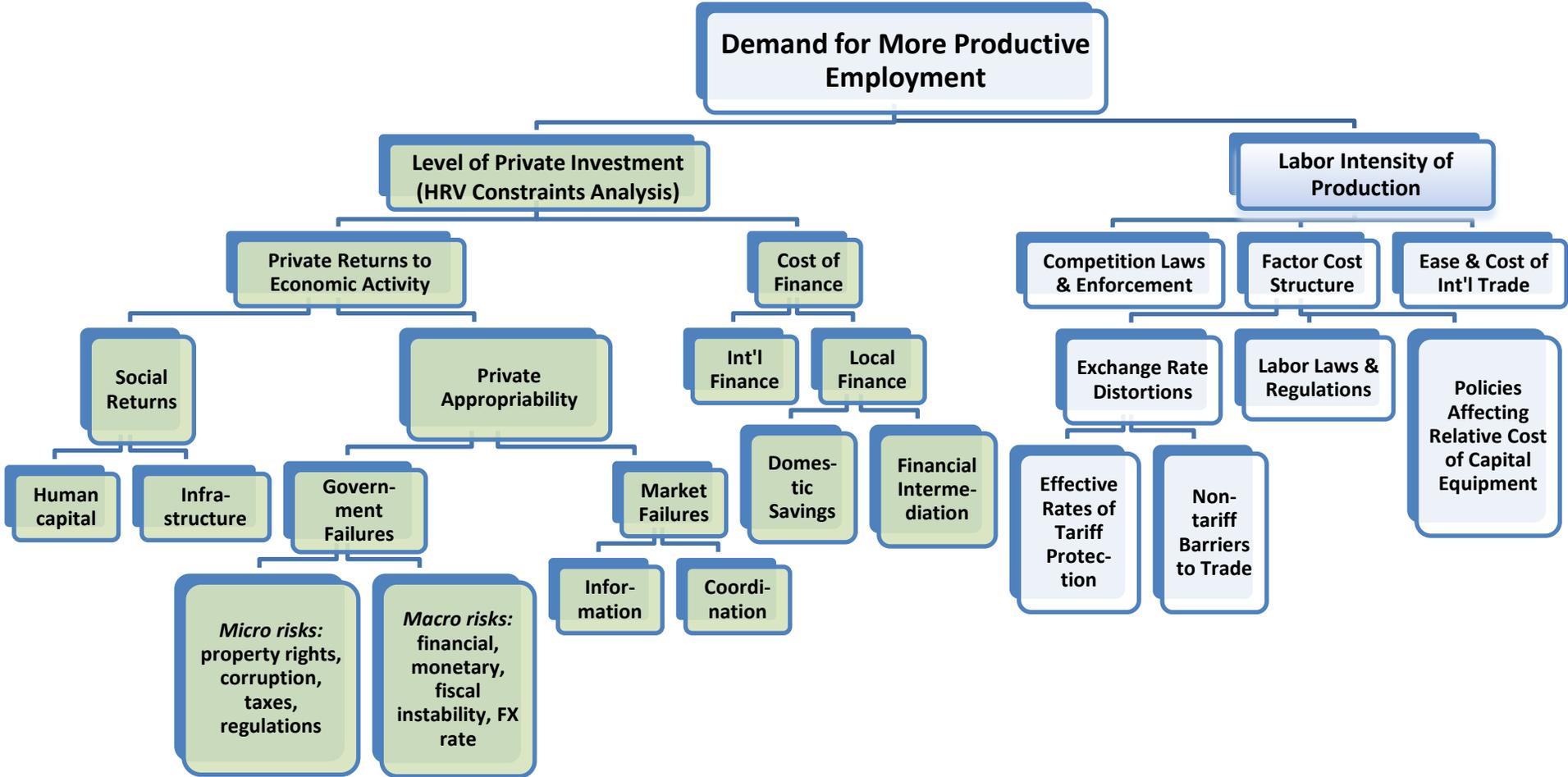
Q. 3) Do wealthy families tend to send their children abroad for their education?

Infrastructure: The poor condition of productive infrastructure can raise operating costs in many ways—transport (roads, rail, waterways, inter-island shipping, airports), port facilities for imported inputs and exports, telecommunications, electric power, water, waste disposal and sanitation facilities can all become binding constraints for industries that need to use them if they drive up costs of production and marketing significantly. These costs can be calculated, and the analyst can look at how they dampen incentives to invest in activities that need to use such infrastructure relatively more (Do businesses have to buy and run their own generators? Are trucks in constant need of repair due to rough roads, raising the cost of land transport?) and estimate the potential for higher returns on investment if particular infrastructure needs were better met.

Is there a lack of or poor condition of productive infrastructure?

Q. 1) What is the general condition of productive infrastructure in the economy? (transport, ports, telecommunications, power, water, waste disposal, sanitation facilities, etc.) Who has access to such infrastructure (e.g., do men tend to own vehicles to transport goods to market while women rely on public transport)?

Q. 2) Does the lack of or poor condition of productive infrastructure increase the cost of doing business?



2Aai2) The private appropriability of otherwise good social returns may be seriously reduced by poor governance and/or market failure.

Government failure/poor governance can impose a large number of micro and macro risks and extra costs that could reduce the expected returns of private investment. Macro risks include things like financial, monetary and fiscal instability, high inflation, foreign exchange rate fluctuations, rationed or unavailability of foreign exchange to finance imports and so forth, Micro risks include costly requirements for new entries and industries dominated by oligopolies, monopolies or government owned enterprises for lack of enforceable competition laws, exceptionally high marginal or corporate tax rates, restrictive labor regulations that increase the cost of labor and reduce management flexibility to hire and fire as needed, high levels of (or fear of) price inflation, fear of expropriation without just compensation, and bureaucratic requirements that increase the cost of doing business, like costly procedures for construction and other permits and for property registration. They also include low regard for property rights, poor judicial enforcement of contracts, a high level of crime, social unrest, open conflict, corruption and high security and protection costs where law and order are problematic. Do problems such as these affect women entrepreneurs more seriously than men? If any of these problems are present, the analyst should consider whether the potential for higher levels of and greater returns on investment would be significant if such constraints could be reduced or eliminated and, if it is, subsequent to the IGD, the political economy likelihood of dealing with them successfully.

Q. 1) Is more productive employment growing (or vulnerable employment decreasing) as a percentage of total employment?

Q. 2) Are estimates of labor productivity significantly lower in the informal sectors than in the formal sectors?

If informal sector employment is large, growing and relatively unproductive, the analysis should seek to determine what inhibits new and old entrepreneurs from registering as formal businesses, so they can more easily obtain credit for expansion and productivity improvements that would generate more productive employment. In some countries there are significant financial disincentives to formalize, like profit taxes that can be avoided by not registering, welfare benefits that can be lost, upfront costs of registration, increased labor costs due to labor laws and social security requirements. Business registration requirements can seem to be costly in terms of both time and money in some countries due to required documentation and office locations. Is it more difficult or costly for women entrepreneurs to register a business than it is for men?³¹

³¹ The IFC Women, Business and the Law online database is a good source for understanding legal, regulatory and other barriers to female firms.

If, on the other hand, the informal sector is clearly shrinking in favor of the formal sector or if it is as efficient and productive as formal sector activities, then there may be no significant constraints hindering further improvement in this area of interest.

Market failures in the availability of information for innovation, adopting and adapting new technology and “coordination” refers to the “chicken and egg” problem of attracting investment into a new product area before there is a significant domestic (or export) demand for it, even though such demand could be considered latent. Evidence includes a low level of commercial research and development and a low level of new industries being created—and those that are created are the result of vertical integration in existing industries and not new start-ups. “According to Hausmann and Rodrik (2003) diversification of the productive structure requires ‘discovery’ of an economy’s cost structure. Firms must experiment with new product lines, adapt new technologies from abroad to local conditions, and ‘discover’ which products they can produce at low enough cost to be profitable and competitive.”³² It is also about whether complementary forms of private capital are already available in the economy and the ability to acquire and coordinate the services required to be competitive.

As for coordination failures, “firms need services, which require simultaneous, large scale investments, in order to ‘innovate,’ make profits and market their products successfully (Rodrik, 2004b). These services are taken for granted by entrepreneurs in developed countries. In developing countries, however, lack of such services is a serious obstacle to output expansion of existing products, improving the quality of existing goods, and new product development (‘self-discovery’). Examples of such services include access to electricity, water, telecommunications, logistics transport networks, marketing, research and product quality information, health and quarantine measures to protect and improve the quality of agricultural output. In a global economy entrepreneurs need also access to information on international industry standards, and international trade agreements in order to compete in world markets and understand the implications of these agreements for their operations.”³³

2Aa) Cost of finance

Q. 1) Is the real lending interest rate relatively high?

Q. 2) Does the private investment rate noticeably change inversely with real interest rate changes?

Q. 3) Can domestic investors obtain long term loans?

³² World Bank, *Benin: Constraints to Growth and Potential for Diversification and Innovation*, Country Economic Memorandum, Report No. 48233-BJ, June 18, 2009, p. 33. See pp. 78-120 of this report for an example of how to conduct this part of the analysis.

³³ *Ibid.*, p. 34

If the cost of finance is a binding constraint one would expect the lending interest rate to be high and actual investments to be elastic to its changes, significantly increasing whenever lending interest rates are reduced. One would also expect to see only short term loans, no long term loans, and credit rationing of some sort. The question is whether this is due to poor access to international sources of finance or to local sources of finance, or to both.

2Aaii1) Access to international sources of finance can be limited due to a low country credit rating, an unsustainable debt level, high risk of default, etc.

2Aaii2) Access to local sources of finance can be limited due to an inadequate level of domestic savings or poor financial sector intermediation.

If domestic savings are in short supply vs. demand one would expect bank interest rates on deposits to be high, trying to attract more deposits.

If poor financial sector intermediation is the main problem the analyst should see a large spread between deposit and lending rates. “In principle, spreads may be high for four reasons: high costs, high (implicit) taxation of financial intermediation, high risks or high profits. Banking systems usually have readily available data on operating costs and reserve requirements, so this can be easily documented. Separating risks from profits is a bit trickier. Banks tend to be accused of having excess profits only to collapse a few years later in a major systemic crisis. One way to look at whether the problem is one of risks or monopoly profits is by looking at the price-earnings (P/E) ratios of banks. If the earnings are high but the P/E ratio is low, it means that profits are not expected to last, suggesting a high risk story. By contrast, if banks have a safe monopoly, price-earnings ratios should be high.”³⁴ Are women entrepreneurs able to obtain credit for business investments and operating costs as easily as men?

2Ac) Labor Intensity of Production

Q. 1) Can most healthy, literate and educated workers, both men and women, find jobs in the domestic formal sector?

Q. 2) Is the unskilled male/female formal sector wage rate significantly higher than the unskilled male/female informal sector wage rate?

Q. 3) What is the extent of male/female worker migration abroad in search of employment? What is the level of remittances (as a percentage of GDP) from overseas foreign workers?

If the evidence indicates that it is difficult for qualified workers to find good jobs in the domestic formal sector and if informal wage rates remain significantly lower than formal

³⁴Hausmann, Ricardo, Bailey Klinger, and Rodrigo Wagner, 2008, pp. 66-67

sector wage rates for similar skill levels, the analysis should determine whether the macro and microeconomic policy environment provides perverse incentives for business enterprises to invest in more capital-intensive than labor-intensive activities. Employment-oriented policies include those that promote competition and allow new start-ups to challenge established enterprises, assure the domestic cost structure is favorable to employment generation, and facilitate international trade to promote the greater use of the country's comparative advantages *vis-à-vis* its trading partners, which in the developing countries usually include their less costly workforce.

2Aci) Is an effective competition law enforced by an effective competition commission?

Or are large segments of the formal sector dominated by a few large firms that are able to prevent competition?

If the latter, a political economy analysis (subsequent to the IGD) should focus on the political and administrative constraints to achieving a more competitive economy and how they might be overcome.

2Acii) The domestic factor cost structure analysis should look at exchange rate distortions and whether the local currency is deliberately overvalued (to keep imported equipment and other inputs artificially cheap) or whether an overvaluation is protected by high tariffs and non-tariff barriers (NTBs) to trade. High effective rates of protection and NTBs on finished goods are usually inimical to more employment generation, by protecting high profits of inefficient and often capital-intensive industries. Labor laws and regulations that increase the cost of hiring labor clearly discourage formal sector employment generation, as does anything that reduces the relative cost of capital equipment (through interest rate or other subsidies, tariff exemptions, etc.). Some labor laws and/or regulations place unnecessary restrictions on the employment of women.

Is the domestic factor cost structure appropriate?

Are there exchange rate distortions such that the local currency is deliberately overvalued or an overvaluation is protected by high tariffs and non-tariff barriers (NTBs) to trade?

Do labor laws and regulations increase the cost of hiring labor?

Is the relative cost of capital equipment artificially low (through interest rate or other subsidies, tariff exemptions, etc.)?

Are there any unnecessary restrictions (such as protective labor legislation) on the employment of women?

2Aciii) Engaging in international trade plays to a country's comparative advantage, better utilizing its relatively more abundant factors of production which usually (in developing countries) include its labor force. So in those countries where labor is relatively abundant, any physical (like poor transportation infrastructure) or policy (red tape) constraints on such trade will further reduce productive employment generation, as will an overvalued exchange rate that reduces the global competitiveness of the country's exports. High effective rates of protection, due to

the structure of tariffs and/or non-tariff barriers to trade such as unwarranted commodity standards, are often used to restrict trade and protect what would otherwise be considered an overvalued exchange rate. The World Bank/IFS Doing Business Indicators with respect to trade would be relevant here. While correcting for such policy distortions as these would be important to provide more appropriate factor price incentives for employment generation, it could also cause transition problems that would need attention among those industries (and their employees), previously protected, that might be forced to contract when faced with global competition. Analysis of how to deal with the “Dutch disease” implications of large inflows of foreign exchange in those countries with large mineral exports, remittance receipts, or foreign aid, is also important, as the resulting revaluation of the country’s exchange rate negatively affects its export and import substitution industries, which tend to be more labor intensive. Appropriate remedies will depend in part on whether those inflows are expected to be temporary or long-lasting.

Is international trade impeded by physical (like poor transportation infrastructure) or policy (red tape) constraints?

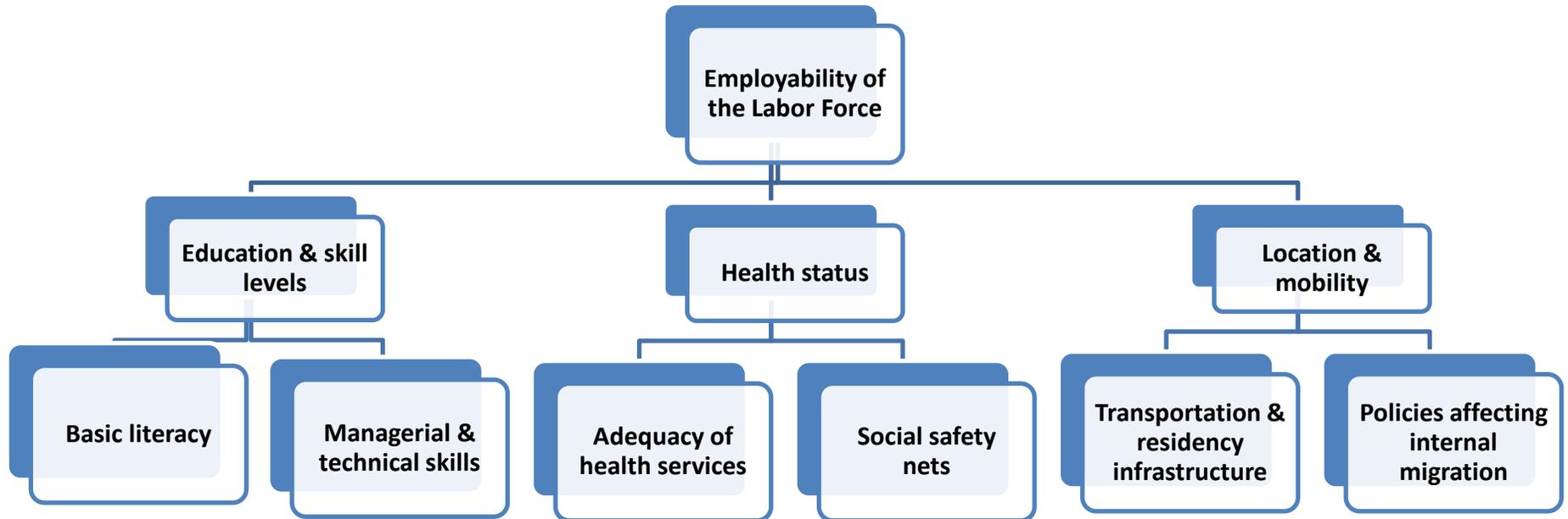
Do high effective rates of protection, due to the structure of tariffs and/or non-tariff barriers to trade such as unwarranted commodity standards, restrict trade and protect what would otherwise be considered an overvalued exchange rate?

2B) Employability of the Workforce:

2Ba) The education and skill levels of the male/female workforce, whether there is sufficient basic literacy among unskilled labor to support skills training, and whether there is sufficient secondary and tertiary education to supply mid- and upper-management echelons (are these being imported from abroad?). Are there significant differences in education and skill levels by gender, ethnic or geographic group? Do any cultural or institutional norms routinely disadvantage women or particular ethnic groups?

2Bb) The health status of the workforce: is worker efficiency reduced by endemic diseases or malnutrition? Are there significant differences in the health status by gender, ethnic or geographic group? Are family planning services effectively reducing fertility levels and population growth rates to manageable levels? Key constraints could be inadequate health services and/or social safety nets to keep people above dire poverty and malnutrition.

2Bc) The location and mobility of the workforce are important. Are potential formal sector workers located too far from potential workplaces with inadequate transportation to and from? Are there policy or physical restrictions on their ability to relocate, such as inadequate housing and other facilities? Do women face more of such restrictions than men, are they prohibited from working at night?



CAUSAL SYNDROMES:

“In the previous steps we assessed the tightness of different constraints on growth. However, we did not propose a theory or an explanation for the existence of those particular constraints. A diagnosis should include a logically consistent causal chain that accounts, as much as possible, for the facts we observe. We refer to this causal story as a syndrome. Once we posit it, we must check its soundness by deriving other symptoms that should be present if the proposed syndrome is true. This process should be repeated until the diagnostic has settled on a well-supported identification of what the binding constraints to growth are and why they are present.”³⁵

For example:

- The over-borrowing state
- The over-taxing state
- The under-investing state
- The under-protecting state
- Disruptions to the export sector
- Barriers to entry

SUBSEQUENT TO THE IGD: Key constraints identified by the IGD must be subjected to more in-depth analyses, sometimes requiring analytical specialists in the field under concern, to determine the causes of the constraints and how they might be relaxed. A judgment should be made about the relative potentials for economic growth and productive employment generation among the different constraints identified, in order to choose one or a few with the most promise for further work, rather than spend time and scarce analytical resources on those with less potential.

Finally, an analysis of the political economy of undertaking any reforms and/or other remedies recommended to alleviate any key constraint identified is extremely important to assure success. There is always opposition to reform from those who may perceive themselves as potential losers to proposed changes, and it must be taken into account and neutralized or overcome if success is to be achieved. If there are serious constraints regarding the inclusion of women and/or other disadvantaged groups that appear to be due to cultural or institutional norms, remedial measures could require very sensitive analysis and planning.

³⁵ Hausmann, Ricardo, Bailey Klinger, and Rodrigo Wagner, “Doing Growth Diagnostics in Practice: A ‘Mindbook’,” CID Working Paper No. 177, Center for International Development, Harvard University, September 2008, pp. 82-84

GROWTH DIAGNOSTIC REFERENCES

- Asian Development Bank, "Growth Diagnostics: A New Approach to Growth Strategy," a PowerPoint presentation by Juzhong Zhuang, ERD, 3 November 2006
- Asian Development Bank, "Philippines: Critical Development Constraints," Country Diagnostic Studies, 2007
- Asian Development Bank, International Labor Organization and the Islamic Development Bank, "Indonesia: Critical Development Constraints," Country Diagnostic Studies, 2010
- Barrios, Jose Miguel and John W. Mellor, *Agriculture and Employment Growth in Guatemala*, IARNA, Guatemala, 2006.
- Bell, C.L., P. B. Hazell, and R. Slade, *Project Evaluation in Regional Perspective: A Study of an Irrigation Project in Northwest Malaysia*, Johns Hopkins University Press, Baltimore, 1982.
- Bhaila, S., *A Perspective on Employment in India's Non-farm Sector*, (Paper for the National Commission on Farmers,) Jawarlal Nehru University, Delhi, 2004
- Creative Associates International, Inc. and the Aguirre Division of JBS International, Inc., "Building Decision Tools for Workforce Development and Labor Markets in the E&E Region: The Case Study of Macedonia," January 6, 2010
- Fan, Shenggen, Connie Chan-Kang, and Anit Mukherjee, "*Rural and urban dynamics and poverty: Evidence from China and India*," FCND discussion papers, International Food Policy Research Institute (IFPRI), 2005
- Fei, John C.H., and Gustav Ranis, *Development of the Labor Surplus Economy*, Yale University Economic Growth Center, Richard D. Irwin, Inc., Homewood, IL, 1964
- Felipe, Jesus, and Norio Usui, "Rethinking the Growth Diagnostic Approach: Questions from the Practitioners," Asian Development Bank, Manila, April 2, 2008
- Haddad, L. and A. U. Ahmed, *Poverty Dynamics in Egypt: 1997-1999*, A report of the Food Security Research Project in Egypt. International Food Policy Research Institute, Washington, D.C., 1999.
- Haggblade, S., P. B.R. Hazell, and P. A. Dorosh, "Sectoral growth linkages between agriculture and the rural non-farm economy," in S. Haggblade, P. Hazell, T. Reardon (Eds.), *Transforming the rural nonfarm economy: Opportunities and threats in the developing world*, Johns Hopkins University Press, Baltimore (2007), pp. 141–182
- Haggblade, Steven, P.B.R. Hazell and Thomas Reardon, eds. *Transforming the Rural Non-farm Economy*, International Food Policy Research Institute, Washington DC , Johns Hopkins University Press, Baltimore, 2007
- Hausmann, Ricardo, Bailey Klinger, and Rodrigo Wagner, "Doing Growth Diagnostics in Practice: A 'Mindbook'," CID Working Paper No. 177, Center for International Development, Harvard University, September 2008
- Hausmann, Ricardo, and Dani Rodrik, "Economic Development as Self-Discovery," *Journal of Development Economics* ,v. 72, December 2003,pp. 603-63

Hausmann, Ricardo, Dani Rodrik, and Andrés Velasco, "Getting the Diagnosis Right: A new approach to economic reform," *IMF Finance & Development*, March 2006, Volume 43, Number 1

Hausmann, Ricardo, Dani Rodrik, and Andrés Velasco, "Growth Diagnostics," John F. Kennedy School of Government, Harvard University," October 2004, revised March 2005

Hazell, P. B.R. and C. Ramasamy, *The Green Revolution Reconsidered — The Impact of High Yielding Varieties in South India*, John Hopkins University Press, Baltimore, 1991

Johnston, B. F. and J. W. Mellor, "The Role of Agriculture in Economic Development." *American Economic Review* 51, 1961, p. 566-93

Mellor, J. W. and C. Ranade, "Why Does Agricultural Growth Dominate Poverty Reduction in Low and Middle Income Countries?" *Pakistan Development Review*, #45, Summer 2006

_____ and M. Usman,. "Agricultural Growth for Building Afghanistan as a Strong Regional Partner," Regional Donor Conference on Afghanistan, New Delhi, India November 2006

_____, "How Much Employment Can Rapid Agricultural Growth Generate? Sectoral Policies for Maximum Impact in Rwanda." *Agricultural Policy Development Project, Research Report No. 13*, Abt Associates, 2002

_____, and S. Gavian. "Determinants of Employment Growth in Egypt: The Dominant Role of Agriculture and the Small Scale Sector," *Impact Assessment Report No. 7*, Abt Associates, 1999

_____, *The New Economics of Growth*, Cornell University Press, Ithaca, NY, 1976

Millennium Challenge Corporation, "Diagnostics in Transition: Analyzing the constraints to economic growth in Moldova," by Ariel Ben Yishay and Franck S. Wiebe, January 2010

Millennium Challenge Corporation, "Guidelines for Conducting a Constraints Analysis," February 2009

Pritchett, Lant, and Preya Sharma, "Implementing Growth Analytics: Motivation, Background, and Implementation," Prepared for DFID Growth Analytics Training Workshop, Sept 4-5 2008

Rodrik, Dani, "Industrial Policy for the Twenty-First Century," CEPR Discussion Paper 4767, 2004

USAID, "Notes from the Shared Growth Diagnostics: Finding the Binding Constraint to Growth and Poverty Reduction" breakout session of the 2010 USAID Economic Growth Officers Conference Washington, D.C., June 25, 2010, session speaker: Dino Merotto, World Bank

USAID, "Pakistan Food and Agriculture Project: Report to USAID/Pakistan" by Weidemann Associates, Inc., March 2009

USAID, "Securing the Future, A Strategy for Economic Growth," April 2008

World Bank, *Benin: Constraints to Growth and Potential for Diversification and Innovation*, Country Economic Memorandum, Report No. 48233-BJ, June 18, 2009

World Bank, "Inclusive Growth Analytics: Framework and Application," by Elena Ianchovichina and Susanna Lundstrom, Economic Policy and Debt Department, Economic Policy Division, March 2009

World Bank, "Inclusive Growth Analytics: A Framework and an Application to the Case of Zambia," a PowerPoint presentation for the USAID Economic Growth Sector Council by Elena Ianchovichina, Economic Policy and Debt Department, World Bank, November 24, 2009

World Bank Group, "PHILIPPINES: Fostering More Inclusive Growth, Main Report" 2010

World Bank, "Striving for Better Jobs: The Challenge of Informality in the Middle East and North Africa Region, Overview," September 2011

World Bank, "The Role of Employment and Labor Income in Shared Growth: What to Look for and How," Jobs and Migration Group, DRAFT: December 14, 2007

World Bank, "Uganda Growth Diagnostic: A World Bank Pilot (2006/7)," A PowerPoint presentation by Dino Merotto at the 2010 USAID Economic Growth Officers' Conference, June 2010

World Bank, URL for Inclusive Growth Analytics website: <http://go.worldbank.org/677R9R65J0>)

World Bank, "Zambia: What Are the Constraints to Inclusive Growth in Zambia? A Policy Note," Report No. 44286-ZM, July 9, 2008 (This report includes a short summary of the World Bank's "inclusive" or "shared" growth analytic framework on pages 17-20.

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