

## CHAPTER 4

# Structural and rural transformations in the Near East, North Africa, Europe and Central Asia



## Summary

Countries in the Near East, North Africa, Europe and Central Asia (NENA) that have achieved an inclusive development pattern, with rapid reduction in rural poverty and a concomitant narrowing of the urban-rural poverty gap, have given careful attention to the way rural transformation interacts with wider structural transformation.

Similarly, NENA countries, which have relatively positive environments for inclusive and sustainable rural transformation, tend to rely on a long-term vision, a coherent set of core policies and solid institutions. Countries lagging behind tend to lack these elements.

These findings confirm the key hypothesis on which the analytical framework of this report is built. That when structural and rural transformations evolve in step, the urban-rural poverty gap narrows and rural development is put solidly on an inclusive and sustainable trajectory. Conversely, when the two transformations diverge, that gap widens, and swaths of rural inhabitants are excluded from the benefits of economic growth. That two-way interaction between structural and rural transformations – a major theme of this report – is captured in this chapter through analysis of rural-urban population trends and encapsulated in four country case studies.

A review of empirical studies analysing structural transformation in the region points to a “structural deficit” resulting from:

- Narrow economic diversification and over-reliance on low-technology content in exports. These have trammelled structural transformation, leaving the informal sector to feed on the steady erosion of increasingly uncompetitive manufacturing and a bloated public sector.
- The absence of a productivity-enhancing sector because of the productivity differentials between sectors being too low to trigger rapid structural and rural transformations.

This chapter covers the transition countries of the two subregions of the Near East and North Africa (NENA) and the countries of

the former Soviet Union, now known as the Commonwealth of Independent States (CIS).<sup>44</sup> Despite high diversity in their geography, history, natural resource endowments and political contexts, these countries have in common deep and far-reaching political and economic transitions that are heavily determining their structural and rural transformations. Both subregions are grappling with the aftermath of two major events separated by nearly two decades – the far-reaching remodelling of CIS countries triggered by the demise of the Soviet Union in the early 1990s and the current reshaping of NENA political and socio-economic landscapes unleashed by the Arab “revolutions” that began in 2011.

### Changes in the NENA subregion

The period since 1980 has seen the following key phases in the NENA subregion:

- *A post-colonial development model.* This was based on state central planning, import substitution industrialization and fairly generous redistributive policies in the oil-producing and non-oil-producing Arab countries, fuelled by the oil windfall and, to some degree, remittances.
- *Structural adjustment programmes starting in the mid-1980s.* These followed the strictures of the Bretton Woods institutions after oil prices collapsed, but uneven and hesitant reform accompanied by “crony capitalism” exacerbated inequality, including rural-urban disparities. For instance, Tunisia’s economic model, adopted during the period, resulted in a skewed territorial approach favouring coastal areas at the expense of the internal, predominantly rural ones, even though the country achieved macroeconomic stability and quite high economic growth.
- *The more recent episode of social upheaval, with attendant political transitions and the neologism “Arab countries in transition.”* Some NENA countries still experience game-changing political, social and economic events akin to those unleashed by the collapse of the Soviet Union two decades ago. The macroeconomic fundamentals of

the Arab countries in transition have markedly deteriorated, including a severe contraction in economic growth, an alarming rise in unemployment (particularly among youth),<sup>45</sup> a deteriorating balance of payments, shrinking foreign currency reserves and steeper inflation. This bleak picture has made the traditionally neglected rural areas sink deeper into deprivation.

### Changes in the CIS subregion

The once-in-a-lifetime transition from state-led to private-sector led economies is proceeding unabated in most countries, albeit at different speeds and with multiple setbacks. The speed and extent of economic reforms vary widely. In the commodity-rich CIS countries, such as Kazakhstan and Azerbaijan, rural poverty reduction has been faster than in commodity-poor ones because of the substantial social transfers made possible by growing fiscal space. Underlying structural transformations are still lagging, however, and there is an acute necessity to foster more inclusiveness by broadening the economic base from the dominant capital-intensive oil industry towards more labour-intensive non-oil sectors.

The interdependence with the Russian economy – via investment, trade and remittance channels – is a key factor in the subregion's economic performance. Any Russian economic downturn ripples through the entire subregion through lost export markets, currency devaluations and receding remittances.

Another key factor in rural transformation is the still unfinished land-tenure reform that is shifting huge tracts of farmland from state to private ownership. A move to individuals holding land remains the main factor, reversing the initial transitional decline of agricultural output in the subregion. Poorly devised land distribution programmes in some CIS countries have led, however, to the over-parcelling of farmland and subsequent attempts to re-consolidate through land repurchases or leasing arrangements, to create larger corporate farms. This trend of farm enlargement and its consequences for rural inequality has accelerated in recent years.

This chapter addresses the report's three overarching questions while considering the NEN region's particular developmental context:

1. What are the different pathways or patterns of structural and rural transformations?
2. What are the consequences for rural poverty reduction and inclusion, and how do those consequences shape the broad options for development pathways and policies to make rural transformation more inclusive?
3. What can be done by governments, the private sector, civil society and development partners – including IFAD – to stimulate and support inclusive and sustainable rural transformation?

In line with the definitions in box 4.1, the chapter treats rural transformation as a component of the overall structural transformation of the economy, given their tight interlinkage. Simply put, rural transformation refers to changes occurring in the rural space in the course of the broader structural transformation of a country's entire economy and territory.

To answer the questions, we developed an analytical framework (box 4.2), which posits that a diverse set of drivers of socio-economic change are at play at any given time during transformation processes. These drivers can be country specific or span an entire geographical region. In addition, drivers can be structural and quite slow moving, reflecting endowments in natural resources, or conjunctural, stemming from policy shifts or disruptive social unrest.

The interplay of the drivers of change yields both structural and rural transformation outcomes. This chapter analyses those outcomes through the prism of inclusiveness to discern "stylized" rural transformation pathways and, thereby, inform future rural development interventions in the region.

This chapter drew from a desk review of relevant empirical studies and literature and a cross-country comparative analysis complemented by four country case studies.

The chapter consists of four sections. The first provides an overview of key drivers of structural transformation – or lack thereof – in the region. The second section probes the interactions

#### BOX 4.1 Structural and rural transformation defined

The RDR 2016 defines structural and rural transformations as follows:

**Structural transformation** is both a cause and an effect of economic growth. A historical process, it continues throughout development. It involves rising productivities in agriculture and the urban economy, a change in the composition of the economy from a preponderance of agriculture to industry and services, rising involvement in international trade, growing rural-urban migration and urbanization, and the realization of a demographic transition from high to low birth rates. It leads to profound political, cultural, social and environmental stresses, which present major challenges for long-term sustainability along these dimensions.

**Rural transformation** is embedded in all the processes of structural transformation. It both contributes to and is driven by structural transformation and is subject to the associated stresses. It involves rising agricultural productivity, commercialization and diversification of production patterns and livelihoods within the agricultural sector and towards the rural non-farm sector. It alters the structure of land holdings, the technology in use and the distribution and dynamics of the population and the labour force. The objective of inclusive rural transformation is to generate improved and more stable livelihoods for all rural people, including small-scale farmers, land-poor and landless workers, women and youth, marginalized ethnic groups and victims of disaster and conflict.

#### BOX 4.2 Drivers of change – analytical framework

Description of the three types of interactions:

1: This link probes the extent to which selected drivers acted as “accelerators” or “brakes” on overall structural transformation by focusing on both the pace dimension (captured by aggregate growth ratios) and the quality of growth aspects (captured through relevant inclusiveness indicators).

2: This link examines whether key drivers acted as enhancers or impediments to the diversification of rural economies and social-inclusion outcomes, mainly within rural areas. Analysing inclusion-related outcomes focuses on the degree of inequality between the various segments of rural inhabitants. Up-to-date empirical findings of the rural development literature on smallholdings versus large farms, men versus women, youth versus adults and indigenous versus settlers, are reflected, mainly for rural space. Outcomes expressed in rural-urban disparities involving an analysis of dynamic rural-urban linkages are not addressed in this interaction. Those disparities are handled under interaction 3.

3: Given the causality between productivity growth and structural change, this link mainly serves to describe whether structural and rural transformations have evolved in steps or have diverged. This two-way interaction (a major theme of the RDR 2016) is largely captured through analysis of rural-urban flows and gaps.



between structural and rural transformation outcomes, with an emphasis on rural-urban disparities. It also proposes a typology to cluster the countries in the region according to the pace of their structural and rural transformations and associated rural poverty reduction outcomes. The third section illustrates the proposed typology, using four case studies spanning the entire range of typologies and relying on more granular data derived from living standards measurement study-type national surveys. The fourth section presents policy recommendations to steer rural transformation onto inclusive pathways.

### Key drivers and outcomes of structural and rural transformations

This section analyses the four key drivers of structural change, focusing on transformation outcomes in rural space:

- The demographic situation
- Natural resource endowments
- Fragility attributes, including conflicts
- Policy choices and corrective measures.

The first two drivers have high inertia – they can drive transformations, but do so very slowly. The third driver tends to accelerate urbanization through forced population movements, often without any meaningful underlying structural changes in the economy. The fourth stems from policymakers' attempts to correct perceived structural and rural transformation shortcomings and steer development to selected pathways.

The chapter posits that the interplay of these drivers (figure 4.1) constantly shapes rural economies and their ability to offer inclusive livelihood options to rural inhabitants. The following four key outcomes capture chiefly such transformation processes:

- Poverty and inequality rates, captured mainly through rural-urban gap analysis
- Labour-market outcomes, in particular unemployment and underemployment rates
- Territorial reconfiguration (such as the ever-shifting boundaries between rural and urban spaces)
- Agricultural sector competitiveness and its ability – or inability – to foster vibrant, diverse rural non-farm economies.

### Demographic situation

Labour movement between sectors with different labour productivity – a traditional gauge of structural and rural transformations – cannot be fully understood unless set against the demographic transition.

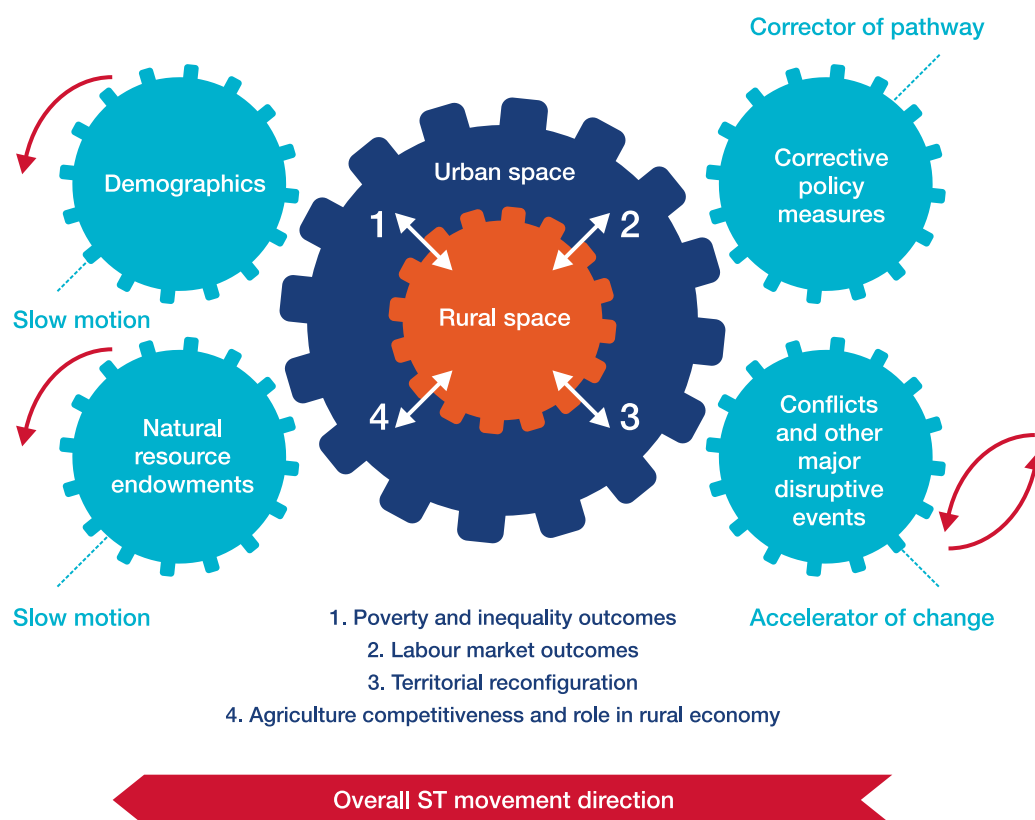
The overall population in NENA countries grew by 3.1 per cent a year during 1980-2010, a high rate compared to the 1 per cent in CIS countries during the same period (UNDESA 2013). Rates by country vary widely. For instance, in the NENA subregion, the population in Yemen grew at 3.5 per cent and that in Sudan at 3.0 per cent each year over the period, while those in Tunisia and Turkey grew at 1.7 per cent. In the CIS, Tajikistan grew at 2.2 per cent a year, but Kazakhstan at only 0.3 per cent.

Outcomes in NENA are largely driven by demographic attributes, such as cultural norms and associated fertility. In particular, the region is experiencing relentless pressure from the supply side of the labour market (Ben Jelili 2010) resulting from the persistent or lagged effects of high fertility and an upward trend in female labour-force participation.

Relatively slow structural transformation and the linked “structural deficit” (discussed in the next section) have depressed demand for labour, particularly for skilled workers. The region's labour market is, therefore, in a state of excess supply, leading to informality, emigration and high unemployment<sup>46</sup> among youth, which is widely described as a missed opportunity. The demographic dividend commonly associated with growing industrialization-driven demand for labour, coupled with a steady growth of the workforce, as seen in East and South-East Asia, largely failed to materialize in the NENA subregion. A similar pattern of an unfulfilled demographic dividend is prevailing in the CIS subregion, and particularly among high population growth countries such as Tajikistan.

That said, the inability of the region's economies to deliver decent jobs to its steadily growing working-age population, including its bulging youth cohort,<sup>47</sup> should be seen not only through an economics lens, but also as an

FIGURE 4.1 Structural and rural transformation: the interplay between drivers and outcomes



urgent matter of social equity and socio-political stability.

### Natural resource endowments

Factor endowments, particularly natural resource endowments such as water, farmland and minerals, are important drivers of structural and rural transformations. Water availability can spur agricultural productivity gains and contribute to the uptake of an inclusive and sustainable rural transformation. Conversely, over-reliance on extractive industries can, if misused, pervert incentives for broad-based economic growth and stunt the agricultural sector.

In most countries in the NEN region, dependence on oil revenue and its cyclical commodity effects translate into pronounced volatility in economic growth, which is particularly detrimental because stable growth is better than volatile growth at tackling poverty.<sup>48</sup>

Likewise, constraints on water availability translate into excessive agricultural-output volatility and hamper rural transformation. Such

output volatility is the hallmark of the dominant dryland agricultural systems in the region. Pastoral and agro-pastoral, rainfed and irrigated farming are the three main dryland agricultural livelihood options, and they often coexist. These options heavily influence the mix of policy and investment interventions aimed at fostering inclusive rural transformation.

Although rainfed agriculture, accounting for nearly 70 per cent of the cultivated area, is dominant in both NEN subregions, the expansion of irrigated farmland is driving most productivity gains. More than 13 million hectares in the CIS countries of Central Asia are equipped for irrigation, nearly three quarters of the irrigation potential in the CIS subregion. Further, countries in this subregion – such as Uzbekistan with 90 per cent of its cultivated area under irrigation and Tajikistan with 85 per cent – have the potential to markedly increase their agricultural productivity with the right mix of interventions.

NENA countries have the lowest share of freshwater availability in the world, and most of their freshwater resources are trans-boundary. The average annual renewable water share per capita in the subregion is 430 cubic metres, well below the water poverty line of 1 000 cubic metres and indicating an absolute scarcity stage.<sup>49</sup> The equivalent figure in the CIS subregion is 3 800 cubic metres, suggesting ample room for sustained agricultural intensification.

Climate change-induced disruptions to the water cycle are expected to exacerbate an already critical situation. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2014) predicts that climate change effects in the NENA subregion will include lower precipitation and impair per capita water availability by 30-70 per cent by 2025. The knock-on effects of reductions in both surface water runoff and groundwater recharge will heavily affect agricultural productivity growth. Such climate-related disruptions will constitute an additional burden to rural economies, acting as a threat multiplier. Climate-induced disruptions in the water cycle are additional stressors that interact with non-climatic stressors and entrenched structural inequalities to shape vulnerabilities and yield differential rural livelihood trajectories (IPCC 2014).<sup>50</sup>

Those alarming prospects call into question the current allocation of up to 70-90 per cent of scarce water resources to a largely water-inefficient agricultural sector, which until now has been unable to drive more inclusive rural transformation. Enhancing water productivity is becoming a critical issue to factor in alongside the labour productivity analysis commonly undertaken when analysing structural transformation patterns.

#### **Fragility attributes, including conflicts**

The structural transformation outcomes of several countries in the NENA subregion cannot be understood unless one considers fragility. This aspect has recently gained prominence as political transitions unleashed unrest, ranging from low-intensity yet protracted social protests to civil war in Iraq, Libya, Syria and Yemen.

State fragility and, particularly, armed conflicts, such as those seen in Sudan and Yemen over the past three decades, typically displace many people, muting the effects of labour movement across sectors and between urban and rural space traditionally associated with structural transformation.

Countries with chronic fragility may prematurely urbanize without any significant underlying structural transformation. Further, a deficit in the state's authority and in its capacity to deliver core developmental functions is usually more pronounced in peripheral rural areas than in large agglomerations, leading to increased pauperization of rural inhabitants. These people see their livelihoods disrupted during conflicts and tend to seek both security and jobs in urban areas, where the state is still, to some degree, functional.

Fragility is largely absent in the CIS subregion. With the exception of Tajikistan, none of these CIS countries has ever been described as fragile. Tajikistan, which went through a highly disruptive civil war between 1992 and 1997, slowly recovered and has been only recently taken out of the World Bank's harmonized list of fragile situations.

#### **Previous development policy choices and the attendant path dependency**

Structural and rural transformation pathways are influenced by initial conditions, institutional factors, policy regimes and investment choices. The tendency to neglect investments in agriculture during the oil boom years in oil-rich NENA countries and the associated over-reliance on imported food commodities to meet domestic needs are important drivers of rural transformation.

Likewise, ill-designed subsidies have had little effect on increasing agricultural productivity and profitability. Most governments in the region provide support through agricultural credit schemes. However, with under-involvement of private financial institutions, these schemes have largely failed to expand or deepen financial services in rural areas.

In the CIS subregion, agriculture experienced a difficult transition, with steep deterioration in the terms of trade and a collapse of the Soviet-era agricultural support system. The post-Soviet land reforms transformed the farming structure, as small farmers emerged as dominant contributors to overall agricultural output. However, some CIS policymakers still favour consolidating farms and see the future of agribusiness in corporate farming. For instance, policy documents and support instruments in most CIS countries do not delimit enough the small-scale segment and, therefore, tend to overlook its critical role in ensuring food and nutrition security.

Another major impediment to agricultural development, especially to the relative failure of some countries to climb the value-added ladder, is the suboptimal supply of extension and advisory services. This shortcoming is particularly acute in the CIS countries, where post-Soviet land reforms entailed distributing state-owned farmland to rural inhabitants formerly on the payroll of *kolkhozes* and *sovkhoses*<sup>51</sup> and who had no real experience in actually running a farm.

### The region's growth-employment nexus: the structural deficit

Few empirical studies have been done on structural transformation in the NENA subregion relative to Asia, Latin America and sub-Saharan Africa, particularly studies that attempt to break out labour productivity into "within-sector" and "across-sector" components – the McMillan and Rodrik (2011) labour-productivity decomposition methodology. Interest in probing the region's structural transformation started in earnest after the popular uprisings (known as the Arab Awakening) that erupted in early 2011, and that were mainly ascribed to acute shortages of economic opportunities for a steadily growing labour force.

The uprisings laid bare a major paradox in the region. Employment intensity (or elasticity of growth) shows no significant difference from that in other developing regions, yet the NENA subregion has some of the world's highest unemployment rates. Some empirical studies

looking at the transmission channels between these two macroeconomic variables (growth of economic output and rate of job creation) conclude that the region is suffering from a "structural deficit" (Arnim et al. 2011; Kucera and Roncolato 2012; Madariaga 2014).

The well-known economic development paradigm experienced by emerging Asia – which was grounded in rapid agricultural productivity growth and a dynamic manufacturing sector fuelling rural-urban migration and economy-wide productivity growth – has hardly played out in the NENA region because of the absence of a broad and competitive manufacturing base. Most early attempts at import substitution industrialization were unsuccessful (Lin 2012). They were pursued without long-term vision, were thwarted by inadequate infrastructure and failed to upgrade when exposed to foreign competition, as protection and subsidies were removed during the trade liberalization that started in the mid-1980s.

An export-led structural transformation relying on manufacturing as an engine of growth – absent in most NENA countries – is the main explanatory factor for the ability of many Asian nations to embark on a faster structural transformation than predicted by differential sectoral income elasticities alone (Lin 2012).

Export sophistication often serves as a proxy for structural transformation in an economy (table 4.1).<sup>52</sup>

Although Asian countries have upgraded and shifted a sizeable part of their exports towards high and medium-high technologies, most NENA countries stay trapped at the medium-low level. That said, averages shown in table 1 conceal some successes in the region as Tunisia fared relatively well on export sophistication. Using the methodology developed by Hausmann et al. (2007), Hausmann and Bustos (2012) found Tunisia to be on the regression line when they plotted export basket sophistication against income per capita.

A later demographic transition than in Asia or Latin America added to the region's inability to embark on classic structural transformation. Thus, all the factors just described suggest



that any industrial catch up in the mould of emerging Asia is largely off limits. Instead, economies in the region are experiencing a “premature tertiarization” (UNCTAD 2003), with labour moving slowly from agriculture to the informal (not formal) sector, as both sectors have low labour productivity.

Madariaga (2014) measured the structural deficit described in a study covering Egypt, Morocco, Syria, Tunisia and Turkey using McMillan and Rodrik’s (2011) methodology. The study concluded that employment elasticity of growth was around 0.6, with virtually no difference among the five countries. What really made the difference for poverty reduction and overall welfare improvement was the size of the across-sector labour-productivity gains (as labour moved from lower- to higher-productivity sectors). But in most of the countries (except Turkey), labour productivity grew largely from within-sector gains (table 4.2).

Most countries follow a classic “Lewis path,” with steadily declining agricultural shares in overall economic output and employment, the latter share declining at a slower pace. Figure C

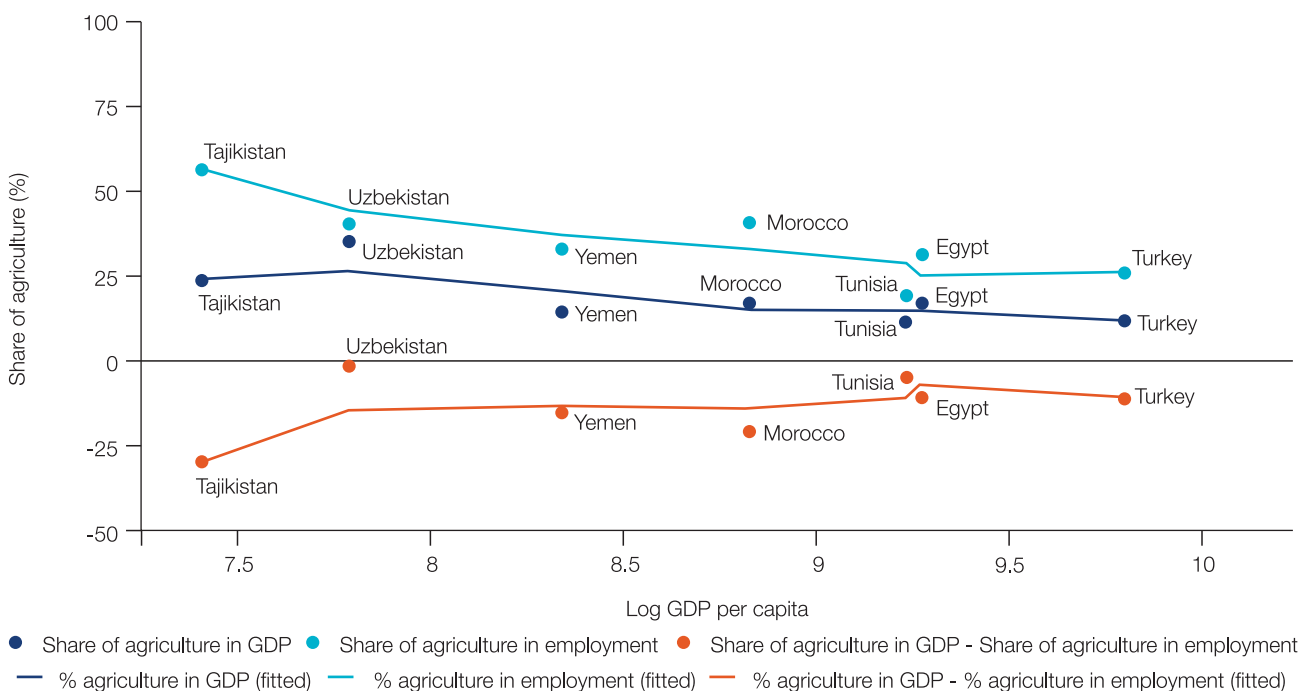
in the Overview and synthesis shows that all countries in this report’s database tended to follow these trends. A turning point occurs when agriculture’s share in employment starts declining faster than the sector’s share in output, and the gap begins to close (Timmer 2009).

These stylized facts about convergence are apparent in the two subregions (CIS and NENA), where countries are at different points along the structural transformation path (figure 4.2).

The two CIS countries of Tajikistan and Uzbekistan seem to have embarked on structural transformation later than Egypt, Morocco, Tunisia and Turkey. Some “oddities”, such as the wide gap between the shares of agriculture in gross domestic product (GDP) and overall employment in Tajikistan, are intriguing (and will be investigated within the broader context of structural transformation in the CIS subregion).

Similar to the NENA subregion, the CIS subregion has been the subject of little empirical research on structural transformation. Akramov et al. (2014) clustered four Central Asian countries using a typology developed by Dorin et al. (2013), which plots trends in

FIGURE 4.2 Selected NEN countries on the path to structural transformation



Source: World Bank 2015.

TABLE 4.1 **Export technology content of emerging Asian and NENA countries**  
(proportion of total export value, %)

Technology level	1990-1999	2000-2010
<b>Emerging Asia</b>		
High	22.5	32.9
Medium-high	11.4	17.7
Medium-low	17.4	19.4
Low	33.7	22.1
Zero	14.8	7.7
<b>NENA</b>		
High	3.5	4.6
Medium-high	12.7	22.5
Medium-low	16.6	25.1
Low	46.7	34.4
Zero	19.9	13.0

Source: Based on Madariaga 2014, using the CHELEM international trade database.

TABLE 4.2 **Labour productivity growth decomposition, 2000-2010 (%)**

	Total gains	Within-sector gains	Across-sector gains
Egypt	1.5	1.5	0.1
Morocco	3.8	3.1	0.7
Syria	4.3	4.3	-0.1
Tunisia	2.3	2.1	0.2
Turkey	3.7	2.5	1.2

Notes: Productivity values are calculated by taking the average per year for each country. Labour-productivity decomposition is based on a sectoral breakdown into three major economic sectors. The agricultural sector comprises the agricultural, hunting, forestry and fishing sub-sectors (International Standard Industrial Classification [ISIC] code Rev. 3, A-B). The industrial sector comprises the mining, manufacturing, utilities, and construction subsectors (ISIC Rev. 3, C-F). The services sector combines the wholesale, retail, hotel, and restaurant subsectors (ISIC Rev. 3, G-H), the transport, storage, and communications subsectors (ISIC Rev. 3, I), the financial and business activity subsectors (ISIC Rev. 3, J-K), the public service subsector (ISIC Rev.3, L-O) and other service subsectors (ISIC Rev. 3, P-Q).

Source: Madariaga 2014; UNSTAT, ILO, World Bank 2015.

the active agricultural population (increasing or decreasing) against trends in income differentials between agricultural and non-agricultural workers. Their findings suggest that only Kyrgyzstan and Uzbekistan are following the classic Lewis path. Tajikistan is falling into the “Lewis trap,” whereby income differentials widen and the agricultural workforce keeps increasing, bucking the trend typically observed in structural transformation (table 4.3).

A review of empirical studies analysing structural transformation in the region, points to the following characteristics:

- Narrow economic diversification and over-reliance on low-technology content in exports. These have trammelled structural transformation, leaving the informal sector to feed on the steady erosion of increasingly uncompetitive manufacturing and a bloated public sector.
- The absence of a productivity-enhancing sector (such as manufacturing) because of the productivity differentials between sectors being too low to trigger rapid structural transformation.
- Labour-productivity gains that were confined to the sector. Among the five countries studied, most labour-productivity gains came from within-sector, not across-sector, gains.

Those regional findings are largely corroborated by country studies for Tunisia (Marouani and Mouelhi 2015) and Egypt (Morsy et al. 2014). In Tunisia, across-sector labour-productivity gains were very low before 1995, the year marking the start of the industrial modernization programme prompted by the country’s accession to the World Trade Organization and the signing

of a free trade agreement with the European Union. These productivity gains vanished subsequently, despite trade liberalization. In Egypt, the sectoral distribution of GDP remained broadly unchanged during 2000-2010. The study’s labour-productivity decomposition saw an overall negative impact from across-sector effects. In short, structural transformation in Tunisia was, at best, productivity neutral and in Egypt, it was productivity reducing.

Although most of the countries in the region saw their agricultural shares in labour and output decline as per capita income rose, without rapid growth in manufacturing, productivity growth was driven by within-sector productivity growth rather than by labour movement from less-productive to more-productive sectors, underwriting the structural deficit.

## Rural transformation outcomes

### The rural-urban nexus

A central theme of this report is that structural and rural transformations, when playing out in harmony and moving in lockstep, tend to bridge rural-urban human development gaps and enhance the inclusiveness of economic growth.

One way to illustrate that theme is to plot a proven proxy indicator for the extent of structural transformation against an appropriate inclusiveness indicator. In the classic dual-economy model, interspatial interactions (in addition to labour movement across sectors) often result in rural-urban population movement. The latter process can be proxied by the growth in urban population over a period long enough to reflect underlying trends. The synergistic effect on inclusiveness – or lack

TABLE 4.3 Structural transformation paths in the CIS countries of Central Asia

Income differential	Employment in agriculture	
	Increasing	Decreasing
Narrowing	Farmer developing: none	Lewis path: Kyrgyzstan and Uzbekistan
Growing	Lewis trap: Tajikistan	Farmer excluding: Kazakhstan

Source: Akramov et al. 2014.

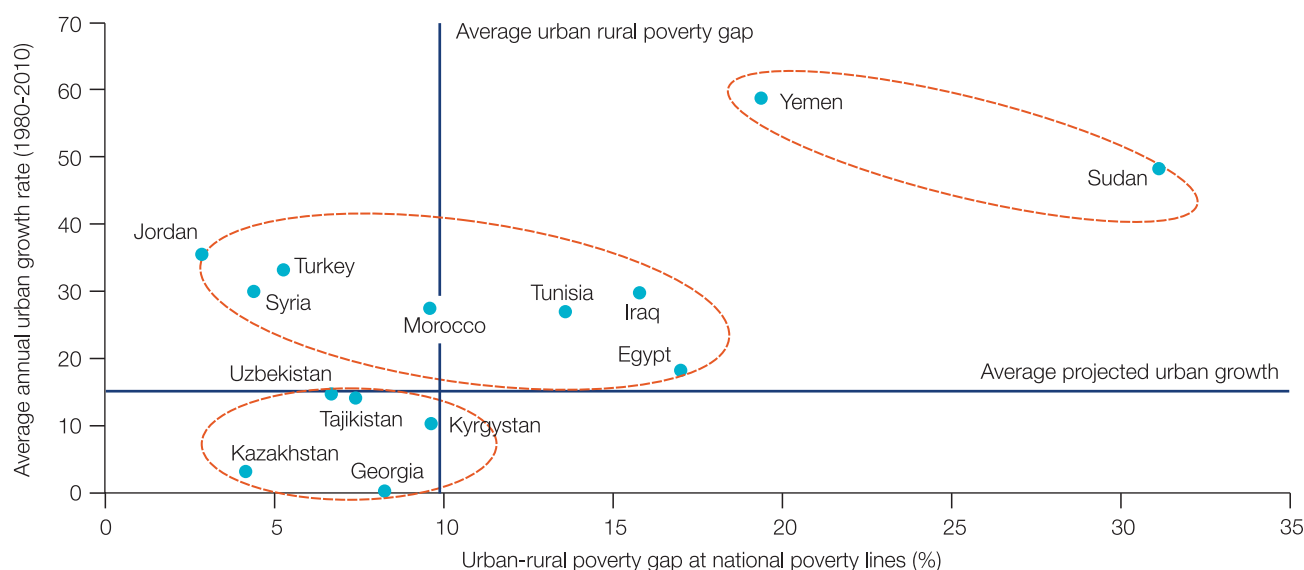
thereof – derived from the interactions between the structural and rural transformations can be captured by the difference in poverty rates between rural and urban spaces. Urbanization closely and positively correlates with the pace of structural transformation, and the poverty gap can be taken as a reliable proxy for the degree of successful rural transformation and reduction of associated poverty and inequality.

When urban population growth during 1980-2010 is graphed against the difference in urban and rural poverty rates (measured at national poverty lines), discrete patterns emerge, allowing regional countries to be clustered by inclusiveness of their rural transformation (figure 4.3).

The three NEN clusters depicted in figure 4.3 correspond to three distinct urbanization patterns, each characterized by a particular pace of rural-to-urban population movements. Therefore, the rural space has been reshaped while experiencing differentiated rural transformation outcomes, leading to the poverty gap widening or narrowing. The different scenarios correspond to these situations:

- *Prematurely urbanized countries.* Examples are Yemen and Sudan, which saw urban population growth far in excess of overall population growth during 1980-2010, and their rural-urban poverty gaps worsen sharply. Their rapid urbanization was largely induced by push factors stemming from natural disasters and armed conflicts (not by pull factors in urban areas). This group illustrates what happens with massive<sup>53</sup> rural-urban population movements without any significant structural transformation.
- *The second group is featuring All Other NENA countries not experiencing major disruptive events in 1980-2010.* These countries could embark on normal rural transformation (in the style of Lewis), albeit at different speeds. They cover a wide spectrum, as measured by the rural-urban poverty gap. (Countries that were relatively stable up to 2010 and have since become fragile, such as Iraq and Syria, are likely to have become prematurely urbanized.)
- *The third group includes exclusively CIS countries.* They all feature relatively low

FIGURE 4.3 Three NEN ruralities



Notes: Urban population growth for 1980-2010 and for 2010-2025 is based on *UN World Urbanization Prospects, 2014 revision* (<http://esa.un.org/unpd/wup/CD-ROM/>). The rural-urban poverty gap is a percentage derived by subtracting the urban poverty rate from the rural poverty rate at national poverty lines using WDI, except for Kyrgyzstan. The gap is measured using the latest available year for each country. Source: Author's compilation, based on UN demographic data, WDI dataset, and National Statistical Committee of the Kyrgyz Republic.

urbanization rates and low urban-rural poverty differences. The reason for the low urban growth is that this subregion is made up of newly independent states, which largely formed a rural hinterland that had been subordinated to the Soviet economy. That position was reflected in the emergence of a few so-called “mono-cities” based on extractive industries or the cultivation of agricultural raw materials, such as cotton, to be processed elsewhere in the industrialized part of Soviet Union (UN ESCAP and UNDP 2013). Once the countries separated, they inherited extremely unbalanced economies and had to go through traumatizing transitions before launching the urbanization process within their new borders. This group seems to show a time lag with the second group, and is expected to catch up with it in a decade or so.

To complement the analysis, value added per worker in agriculture (constant 2005 United States dollars) is used as a proxy indicator of the extent of rural transformation in selected NEN countries. Figure 4.4 corroborates our previous finding. A combination of above-average structural transformation (captured by the urban growth proxy indicator) with above-average rural

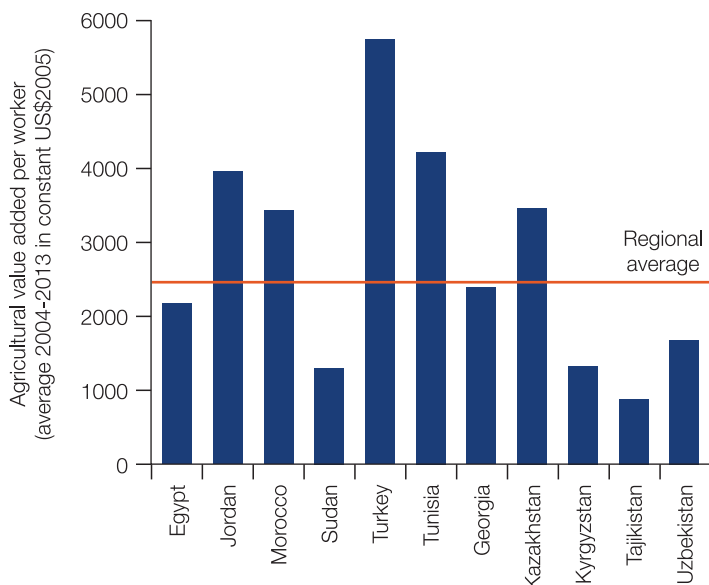
transformation (captured by the agricultural value added per worker proxy indicator) results in relatively fast rural poverty reduction and a narrower urban-rural poverty gap (Jordan, Morocco, Tunisia and Turkey).

Conversely, countries featuring a combination of below-average structural and rural transformations achieve slow rural poverty reduction and see a wider urban-rural poverty gap (fragile countries such as Yemen and Sudan and non-fragile economies such as Egypt, Georgia and Tajikistan).

Thus, no country seems to have achieved an inclusive development pattern characterized by fast overall poverty reduction and a concomitant narrowing of the urban-rural poverty gap without paying careful attention to the way rural transformation interacts with the wider structural transformation.

These findings confirm the key hypothesis upon which the analytical framework is built. When structural and rural transformations evolve together, the urban-rural poverty gap narrows and rural development is put solidly on an inclusive and sustainable track. Conversely, when structural and rural transformations diverge, the gap widens and, as a consequence, swaths of rural inhabitants are excluded from reaping the benefits of economic growth.

FIGURE 4.4 Agricultural labour productivity, selected NEN countries, 2004-2013



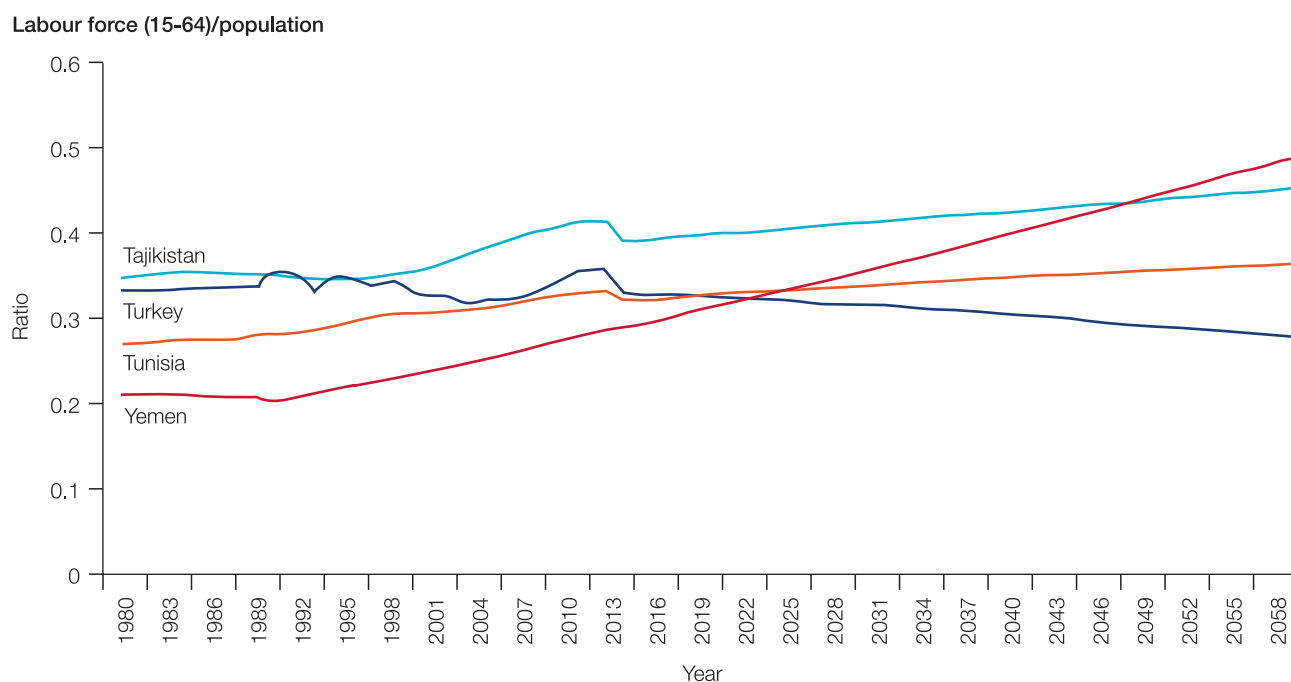
Source: IFAD, based on World Bank (2015)

**Four case studies illustrating rural inclusive transformation pathways**

This subsection provides more detailed reviews<sup>54</sup> of four NEN countries to illustrate the typology related to the three NEN ruralities. The wide geographical coverage of the sample and the range of income status (low, lower-middle, and upper-middle income) were also considered, as were fragility and conflict. On that basis, Yemen was selected to illustrate a rural transformation during fragility, Turkey and Tunisia are relatively diversified economies (with the former arguably more successful than the latter in bridging the rural-urban poverty gap); and Tajikistan is a slow transformer in the post-Soviet economic transition.

Securing rapid and inclusive structural and rural transformations is becoming increasingly

FIGURE 4.5 Ratio of labour force (15-64 years old) to total population, 1980-2060



Source: World Bank (2015) and UNDESA (2013)

critical, as demographic pressures on labour markets continue to build, as shown by the growing ratio of the labour force to population, except for Turkey, which has just reached a turning point (figure 4.5).

The four countries are at different points on the path to rural transformation (see figure 4.2), with Turkey the most advanced, followed by Tunisia, Yemen and Tajikistan. A comparison between the rate of reduction of each country's agricultural share in output allows one to place them relative to the Lewis turning point, when agriculture's share in employment (AgEmp) starts to decline faster than agriculture's share in GDP (AgGDP) (table 4.4).

The exercise was constrained by data availability because the change in AgGDP and AgEmp had to be computed using different time series. However, the overall picture is consistent with the positioning of countries along the Lewis pathway, as discussed. Tunisia and Turkey seem to be past the Lewis turning point, whereas Yemen has yet to reach it. Tajikistan is experiencing a very rare situation, in which the agricultural share in employment is still growing – a clear indication that the country

has yet to launch its own structural transformation to accompany the likely acceleration of urban growth. These positions are corroborated by the agricultural value added per worker in figure 4.6, which shows Turkey and Tunisia above the trend line, but most CIS countries at the tail of the curve.

#### *Tajikistan: A late and slow transformer*

Tajikistan is a landlocked, low-income country in Central Asia. With a gross national income (GNI) per capita of US\$990 in 2013, it is the poorest former Soviet Union country. It has the highest population growth in Central Asia and, unlike the first group of rapid urbanizers, has experienced "ruralization" as urban population growth has been outpaced by total population growth during 1980-2010 (1.4 per cent versus 2.2 per cent).

The structural and rural transformations have been hampered by a five-year civil war that ended in 1997 and a devastating transition from a command to a market-based economy. The economy is undiversified, with cotton (providing a livelihood to nearly 1 million rural inhabitants) and hydroelectricity the

TABLE 4.4 Lewis turning point for four countries

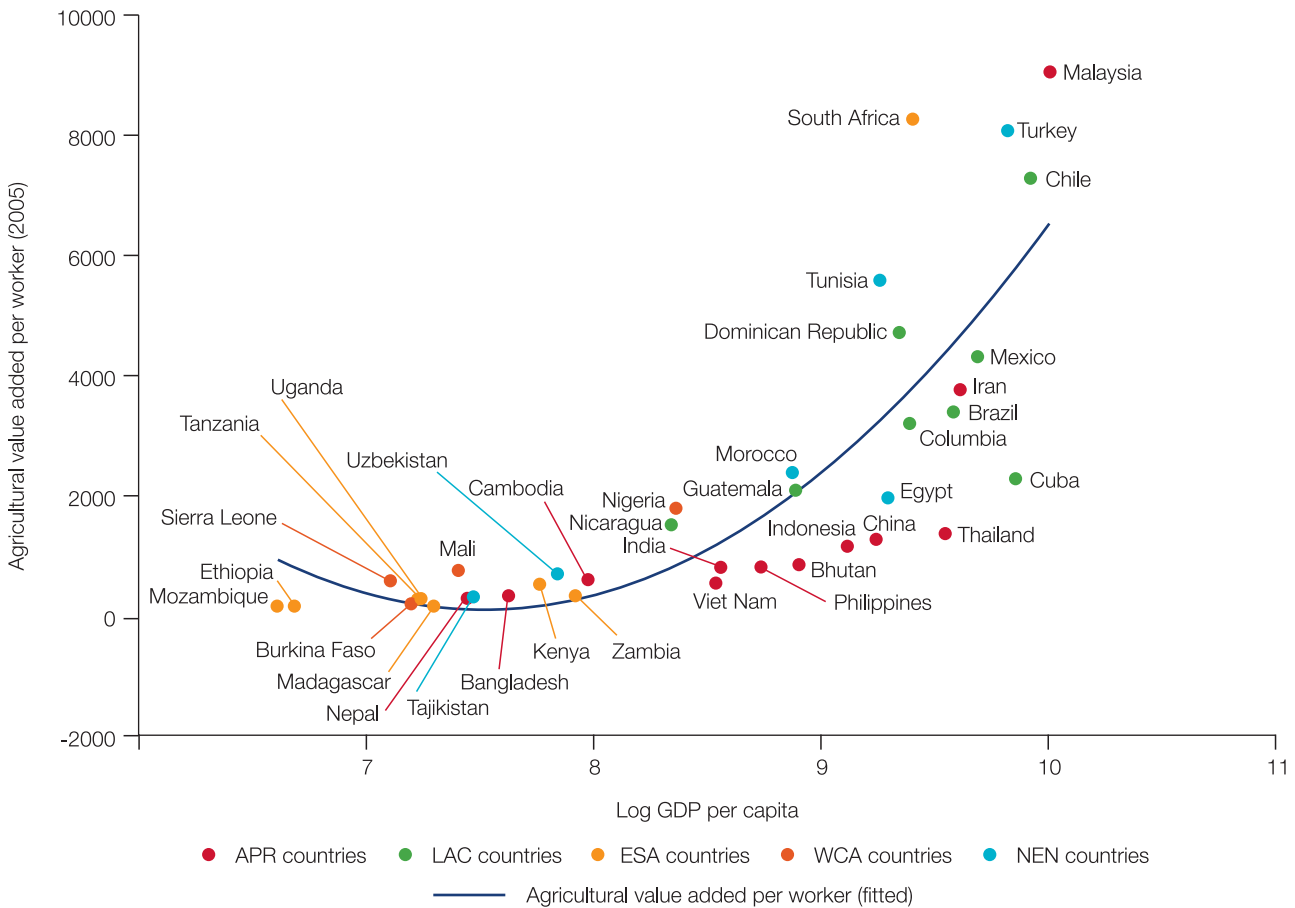
	Period	Share of agriculture in GDP (start; end)	Annual reduction (%) <sup>a</sup>	Share of agriculture in employment (start; end)	Annual reduction (%) <sup>b</sup>
Tajikistan	1995-2008	36.7; 19.9	3.99	59.1; 66.7	3.99
Tunisia	1980-2011	16.3; 8.9	1.87	33.4; 16.2	1.87
Turkey	1985-2012	20.7; 9.0	2.86	45; 23.6	2.86
Yemen	1991-2004	23.1; 11.7	4.74	52.6; 31.0	4.74

<sup>a</sup> Average percentage points.

<sup>b</sup> A positive value denotes a reduction.

Source: authors' calculations, based on WDI and State Statistical Committee for Tajikistan.

FIGURE 4.6 Agricultural value added per worker, by GDP per capita



Source: IFAD, based on World Bank (2015)

major export items. Unsurprisingly, agriculture still dominates the economy, accounting for about 20 per cent of output and keeping up to two thirds of the labour force mired in low-productivity, poorly remunerated jobs. Tajikistan has, however, the highest per capita availability of renewal water in Central Asia, at more than 9,000 cubic metres per inhabitant (FAO Aquastat 2011), suggesting ample room for intensifying agricultural-output sustainably.

Agricultural labour productivity is the lowest among the CIS countries and is dwarfed by labour-productivity levels in relatively transformed countries such as Turkey and Tunisia (see figure 4.4). Crop yields have yet to reach pre-independence levels, when the country had the highest cotton yield in Central Asia, at 3 tons per hectare compared with 1.6 tons per hectare now. Similarly, fruit and vegetables have not yet reached pre-transition yields.

Reasons for such disappointing agricultural productivity (figure 4.7) are manifold. Tajikistan initiated land reforms in 1991-1992 shortly after gaining independence. The civil war and a hesitant reform agenda led to slow restructuring and emergence of individual farms (such farms have led the agricultural recovery in Central

Asia). In Tajikistan, the corporate agricultural sector continued its general decline.<sup>55</sup>

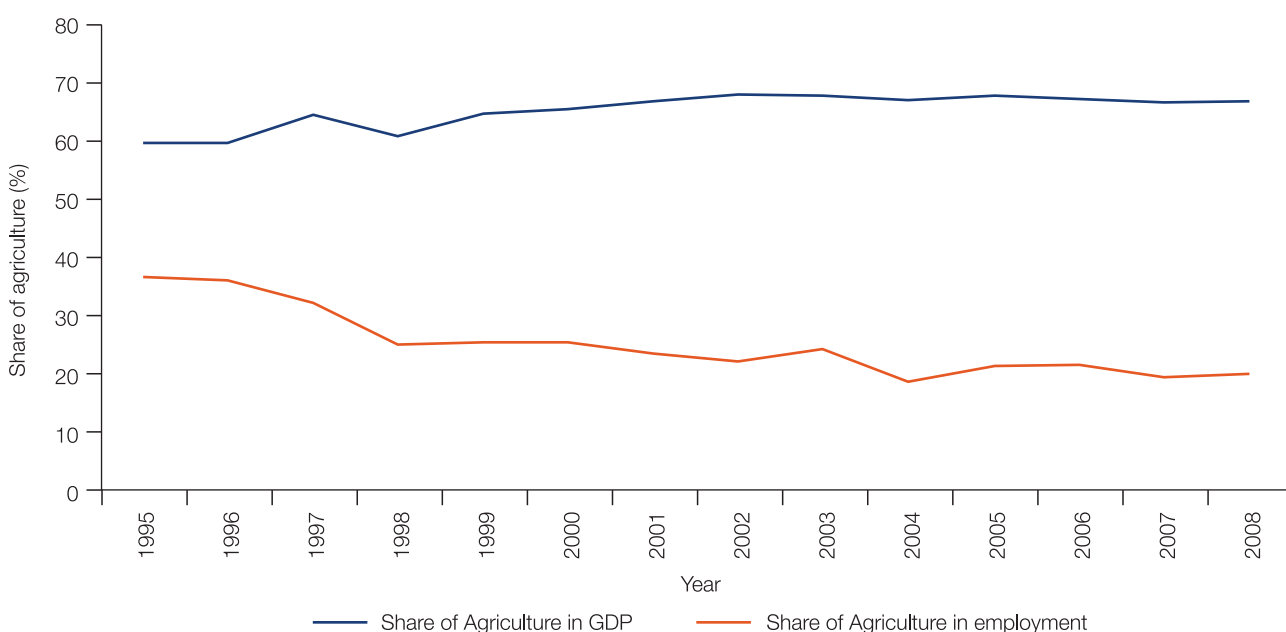
Productivity gains, although modest, were achieved mainly by individual farms.

The structural transformation in Tajikistan is atypical among the four case studies because of the continuing growth of the share of labour employed in agriculture. Tajikistan is the only country experiencing the Lewis trap.

Low agricultural productivity translates into wages lower than in other sectors; they average less than one third of the national average and about one tenth of wages in construction. This huge discrepancy has widened the poverty gap between rural and urban areas (table 4.5).

Extreme poverty and hunger are also common. Tajikistan is the only Central Asian country still facing acute food insecurity, according to *The State of Food Insecurity in the World* (FAO et al. 2015). Although the prevalence of undernourishment in Central Asia fell steadily, from 9.6 per cent in 1990-1992 to 5.8 per cent in 2014-2016, Tajikistan saw its proportion of undernourished in the total population rise from 28.1 per cent to 33.2 per cent over the period. The absolute number of undernourished nearly doubled, from 1.6 million to 2.9 million. Similar

FIGURE 4.7 Diverging shares of agriculture in employment and in GDP, Tajikistan



Source: State Statistical Committee, Tajikistan



TABLE 4.5 The widening rural-urban poverty gap, Tajikistan (poverty rates, %)

	2003	2007	2009
National	72.4	53.5	46.7
Extreme	41.5	17.1	13.8
Urban	68.8	49.4	36.7
Urban extreme	39.4	18.9	9.5
Rural	73.8	55.0	50.8
Rural extreme	42.3	16.4	15.6

Sources: WDI (World Bank 2015) and State Statistical Committee, Tajikistan.

alarming figures are reported for underweight children younger than 5-years-old, which in recent years was kept under 5 per cent in most CIS countries except Tajikistan, where it remains over 15 per cent. On labour-market outcomes, official government figures indicate low unemployment of about 2 per cent, but this rate does not account for pervasive agricultural underemployment or for huge labour movements across borders to find jobs, primarily in Russia. The average monthly wage of migrant workers in Russia was estimated at about US\$150 a decade or so ago (World Bank 2005), more than 10 times that in agriculture, as reported by the Tajikistan Statistical Committee in 2005. The huge labour-productivity difference, which would typically have set off a structural transformation and labour movement within the country's borders (if the economy had diversified), led instead to massive labour exports. In one sense, structural transformation in Central Asia needs to be cast beyond the borders of the newly independent states to be fully understood.

Statistics on the number of migrants are sparse and unreliable. Remittances, though, can be used as a proxy for massive labour movements. According to the World Bank, Tajikistan is the most remittance-dependent country in the world, with migrants sending back the equivalent of 52 per cent of GDP, amounting to US\$4 billion in 2013.

Such predominance is common in commodity-poor Central Asian countries.

Kyrgyzstan, for instance, is the second most remittance-dependent country, with a remittance-to-GDP ratio of nearly 30 per cent. Although migrants' financial transfers provide a lifeline for millions of households, they tend to be a major source of macroeconomic instability (because of their vulnerability to political and economic crises in remitting countries) and to impede structural transformation.

#### *Tunisia: a story of an excessive rural-urban polarization*

Tunisia is an upper-middle-income country, with a GNI per capita of US\$4,200 in 2013. Its development pattern, relying on early investment in human capital, has often been cited as a model in the Middle East. The country is a pioneer in the Arab world of universal education, free health services and women's emancipation. It has fairly strong macroeconomic fundamentals – robust economic growth, openness to foreign investment and trade, and an economy fairly diversified compared to other economies in the region. Despite the economy's dual structure of an offshore, urban-based export sector with virtually no backward and forward linkages to the local (and inland), primarily agricultural economy, Tunisia has reduced its national poverty incidence, narrowing the gap with more advanced countries, although the coastal-inland split remains very wide.

However, Tunisia's development model has run out of steam, as early gains from labour-

intensive export-oriented industries, such as textile manufacturing and tourism, failed to take it up the value-added ladder. The structural deficit described earlier is impeding the economy's ability to generate enough jobs for a growing and increasingly educated workforce. Because unemployment and poverty are closely related – unemployment translates into exclusion from social protection, as the country's safety net relies heavily on employment-based insurance – a long spell of unemployment heightens the risk of falling into poverty (OECD 2015).

The 2011 uprising, which triggered the turmoil in the Middle East, was not so much the consequence of abject poverty, but of ill-advised territorial development in which rural-urban

poverty and employment gaps were not tackled. This failure worsened the polarization between predominantly rural inland areas and the coastal zones (table 4.6), which received most public investments in infrastructure and private productive investments.

Unlike Turkey, the economic boom in Tunisia over the decade did not see rural areas catch up, and rural poverty remained about twice that in urban areas. A more granular review of interregional disparities between the predominantly rural mid-west<sup>56</sup> and the mainly urban coastal areas in the north-east reveals more pronounced polarization, with the poverty rate in the former more than three times that in the latter. Extreme poverty disparities are even wider (table 4.7).

TABLE 4.6 Poverty by location and year, Tunisia (%)

	Poverty			Extreme poverty		
	2000	2005	2010	2000	2005	2010
Tunisia	32.4	23.3	15.5	12.0	7.6	4.6
Large cities	21.5	15.4	9.0	4.3	2.2	1.3
Small cities	32.5	22.1	14.0	10.5	6.5	2.9
Rural	40.4	31.5	22.6	19.1	13.4	9.2

Source: Institut national de la statistique, Tunisie, last three household budget surveys.

TABLE 4.7 Poverty by region and year, Tunisia (%)

	Poverty			Extreme poverty		
	2000	2005	2010	2000	2005	2010
Grand Tunis	21.0	14.6	9.1	4.3	2.3	1.1
North-east	32.1	21.6	10.3	10.5	5.4	1.8
North-west	35.3	26.9	25.7	12.1	8.9	8.8
Mid-east	21.4	12.6	8.0	6.4	2.6	1.6
Mid-west	49.3	46.5	32.3	25.5	23.2	14.3
South-east	44.3	29.0	17.9	17.5	9.6	4.9
South-west	47.8	33.2	21.5	21.7	12.1	6.4

Source: Institut national de la statistique, Tunisie.

Rural-urban gaps in labour-market outcomes also provide a compelling case for the need for more inclusive territorial development. The structural deficit just analysed led to depressed labour demand, concomitant with an oversupply of young and skilled labour resulting from a lagged demographic effect and previous education policies. This structural deficit, alongside the labour skills mismatch, was mostly felt in rural areas, providing for an explosive mix. Predominantly rural areas of the northwest and southwest have the highest unemployment, particularly among the highly educated (table 4.8).

The poverty and unemployment rural-urban disparities stem largely from sectoral differences in labour productivity, which themselves are manifestations of the extent of the structural and rural transformations.

According to the labour and microenterprise surveys of 2012 – which in Tunisia capture the bulk of the informal economy – the average annual value added per agricultural employee was TND 11,505, whereas the equivalent amount in the informal economy was TND 11,081. By way of comparison, economy-wide labour productivity stood at TND 21,767 whereas labour productivity in manufacturing reached TND 18,923.

The classical structural transformation scenario whereby labour would flow from low-productive agriculture to a manufacturing sector along a positive productivity gradient (in this case a TND 7,418 differential) did not play out and instead labour flew to an informal economy with virtually zero productivity differential. The absence of productivity differential captured by informal labour surveys in Tunisia is consistent with the studies of labour-productivity decomposition. The structural deficit means that, without jobs in highly productive industries and services, new entrants to the labour market, as well as labour shed from low-productive agriculture, have been absorbed by the informal sector, the fastest growing in Tunisia. Job creation in that sector grew at 5.6 per cent a year during 2007-2012, much faster than the economy-wide rate (a mere 0.94 per cent) and the manufacturing employment growth rate (0.7 per cent).

*Turkey: a fairly inclusive transformer*

Turkey, an upper-middle-income country with a GNI per capita of US\$10,970 and GDP of US\$822 billion in 2013, is the 18th-largest economy in the world. It is a member of the OECD and G20, and a European Union accession candidate. The country's rapid growth

TABLE 4.8 Unemployment rate by region and education level, Tunisia, 2010 (%)

Region	Total	Higher education	Secondary	Primary	None
Grand Tunis	13.2	14.4	14.5	11.1	4.0
North-east	11.0	21.9	11.7	8.3	4.4
North-west	14.4	31.6	17.9	10.6	6.1
Mid-east	9.3	19.4	8.1	6.5	4.7
Mid-west	16.8	35.4	16.7	8.8	5.0
South-east	16.8	35.4	16.7	8.8	5.0
South-west	23.4	41.7	24.0	14.1	8.4
Total Tunisia	13.0	22.9	13.7	9.2	5.7

Source: Institut national de la statistique, Tunisie.

during the past decade has tripled its GDP and helped earn it “high human development” status in the *Human Development Report 2014* (UNDP 2014).

This record is underpinned by arguably successful structural and rural transformations. The shift to high-value agriculture fuelled a vibrant rural export-led<sup>57</sup> economy and yielded gains in reducing poverty and inequality and in raising employment. This shift was seen in a series of policy reforms initiated in the mid-1980s to foster market orientation and the use of a “basin-based” agricultural support system, factoring in regional disparities in natural resources.

The country built on its resources (mainly water and fertile land) and on its strategic geographical location (at the crossroads of three continents) to establish itself as an agribusiness regional hub serving Europe, the Middle East and Central Asia. Turkey is an outlier in the Middle East on successful industrial upgrading, as proxied in table 4.9 (compare table 4.1).

Although the country experienced urban growth at nearly twice the rate of total population growth during 1980-2010 (3.3 per cent versus 1.7 per cent), it steadily narrowed the rural-urban poverty gap, which shrank at 15 per cent a year on average over 2004-2013 (table 4.10).

The 2013 income and living conditions survey showed a relatively balanced income distribution, with the ratio of the share of the highest-income group (fifth quintile) of total income to the share of the lowest (first quintile) estimated at 7.2 for urban settlements and 6.5 for rural areas. The Gini coefficient showed

TABLE 4.9 Moving up the export value chain, Turkey (% of total export value)

Technology level	1990-1999	2000-2010
High	3.0	4.8
Medium-high	12.2	25.2
Medium-low	20.7	28.5
Low	49.3	33.7
Zero	13.7	7.2

Source: Madariaga 2014, using the CHELEM international trade database.

slightly higher inequality in urban (0.392) than rural (0.365) areas. The vulnerability of households to falling back into poverty, as measured by the at-risk poverty rate, showed much-reduced polarization between rural and urban areas (14.3 per cent rural versus 13.6 per cent urban).

Rural areas are faring better than urban areas on labour force participation, employment and unemployment, including that among youth (table 4.11).

#### *Yemen: rural transformation in the context of fragility*

Yemen, formerly known as Arabia Felix (Happy Arabia), was historically the most prosperous part of the Arabian Peninsula before ultimately becoming the poorest Arab country, with a GNI per capita of US\$1,330 in 2013. Yemen came into being with its current boundaries in 1990, after the reunification of the Yemen Arab Republic and the People’s Democratic

TABLE 4.10 Bridging the rural-urban poverty gap, Turkey (poverty rate at the national poverty line, %)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
National	20.89	16.36	13.33	8.41	6.83	4.35	3.66	2.79	2.27	2.06
Urban	13.51	10.05	6.13	4.40	3.07	0.96	0.97	0.94	0.60	0.64
Rural	32.62	26.59	25.35	17.59	15.33	11.92	9.61	6.83	5.88	5.13

Source: Turkish Statistical Institute, annual income and living condition surveys.

TABLE 4.11 Main labour-market indicators, Turkey

	National		Urban		Rural	
	2012	2013	2012	2013	2012	2013
Labour force (000)	27 339	28 271	18 186	18 907	9 153	9 364
Labour force participation (%)	50.0	50.8	48.3	49.6	53.6	53.6
Employment (%)	45.4	45.9	42.9	43.9	50.7	50.3
Unemployment (%)	9.2	9.7	11.1	11.5	5.5	6.1
Youth unemployment (15-24 years of age)	17.5	18.7	20.3	21.2	11.9	13.7

Source: Turkish Statistical Institute.

Republic of Yemen. Yet the country continued to grapple with cleavages along tribal, religious and regional lines and suffered a civil war in 1994. Government authority has been challenged by Houthi rebels in the northwest and a secessionist movement in the south during most of the past two decades. Yemen achieved only limited state building, and government reach into rural areas is still quite limited (Schultze-Kraft et al. 2014).

The economy relies heavily on oil revenue, which peaked at 41.3 per cent of GDP in 2005 before declining to about 11 per cent in 2013. The oil sector accounts for up to 90 per cent of exports and an estimated 70 per cent of government revenue. However, the oil rent, now largely over, led to a narrow tax base, which is generally associated with little accountability. Oil-driven economic growth mainly benefited the urban areas – the result of a pronounced urban bias.<sup>58</sup>

More critically, Yemen is running out of water. Current per capita availability of renewable water is 140 cubic metres, the lowest level in an already water-strained Middle East.<sup>59</sup> Hill (2010) predicted that the capital, Sana'a, could run dry in a decade unless immediate mitigation measures were taken. Despite this alarming prospect, the country squanders up to 90 per cent of its water resources in either low-value agriculture or high-value cultivation of the qat leaf, a mild stimulant commonly chewed in Yemen. This crop accounts for nearly 30 per cent of agricultural GDP and consumes up to 40 per cent of total water resources.

Although the qat value chain employs an estimated 500,000 and provides a steady revenue stream to producers, the net effect is negative when one factors in lost water and depressed labour productivity. In addition, consumption of this mild stimulant results in health problems and reduces intake of nutritious food, as households tend to curtail their food expenditures in exchange for qat.<sup>60</sup>

Yemen's average annual urban growth largely outpaced its population growth during 1980-2010 (5.9 per cent versus 3.5 per cent). This trend will likely continue, albeit at a slower pace (3.8 per cent versus just 2.1 per cent a year during 2010-2025).

The rapid urbanization is associated with a widening of the rural-urban poverty gap. The two latest household budget surveys (HBSs) of 1998 and 2005 suggest that, measured at the national poverty line, urban poverty fell from 32.3 per cent to 20.7 per cent, and rural poverty declined from 42.5 to 40.1 per cent, widening the rural-urban poverty gap. Further, the very modest decline in rural poverty is not robust to alternative definitions of poverty lines (World Bank 2007), as slightly higher poverty lines would have increased the rural-urban poverty gap between the two HBSs.

Real GDP grew by 2.1 per cent annually between these two surveys, when urban poverty declined far faster than rural poverty – 6 per cent a year versus 0.8 per cent – indicating a very low growth elasticity of rural poverty.<sup>61</sup>

This weak link between growth and rural poverty reduction correlates with the worsening income inequality between the two HBS periods (World Bank 2007).

Between the two HBSs, agricultural growth – the mainstay of rural livelihoods – was quite weak, unlike the expansion in trade and transport.

The prevalence of extreme poverty and associated undernourishment also mirror a dismal income distribution. The prevalence of undernourishment in Yemen is highest in the Middle East, and it showed only slight declines between 1990 and 1992 (28.9 per cent) and 2014 and 2016 (26.1 per cent).<sup>62</sup> The proportion of underweight children under 5 years of age, an indicator of chronic hunger, is estimated to be over 20 per cent.

The picture is equally bleak when it comes to labour markets outcomes. Estimates based on the Yemen Central Statistical Organisation data pegged the unemployment rate at 9.1 per cent on the eve of the reunification in 1990. The figure rose to 13.7 per cent in 1999 and to an estimated 35 per cent in 2010 (SRDC 2014).

### Conclusions and implications for policy and investment

This final section addresses the third overarching question of this report – what can be done to stimulate and support inclusive and sustainable rural transformation? The analysis shows that no NEN country has achieved an inclusive development pattern with relatively fast rural poverty reduction and a concomitant narrowing of the urban-rural poverty gap without carefully considering how rural transformation interacts with the wider structural transformation. Similarly, countries in the NEN region that have ensured a relatively positive environment for transformation rely on a coherent set of core policies and solid institutions. Those lagging behind tend to lack these elements.

These findings confirm the main hypothesis that when structural and rural transformations evolve in step, the urban-rural poverty gap narrows, putting rural development on a sustainable track. Conversely, when the

transformations diverge, that gap widens, excluding many rural inhabitants from the benefits of economic growth. This two-way interaction between the transformations must be factored into strategies and investments underpinning rural development.

Investing in rural infrastructure, enhancing access to farmland and other productive assets for excluded rural inhabitants, fostering the uptake of transformative and affordable technologies, and enhancing access to rural finance are among the levers to steer rural transformation to inclusive pathways.

Although NEN countries have had a wide range of context-specific rural transformation experiences, this chapter has singled out four imperatives:

- Addressing the structural deficit to absorb a rapidly growing and young labour force into the formal economy.
- Boosting productivity in agriculture so that it can become a real engine of growth within diversified rural economies resulting in an across-sector productivity gradient high enough to ignite inclusive rural transformation.
- Building the resilience of rural communities to both human-made and climate-induced shocks – this enhances sustainability of rural transformation welfare gains and is particularly critical for the growing number of fragile countries in the region experiencing conflicts and having to deal with the aftermath for years to come.
- Addressing the region's low female labour-participation rate and enhancing rural women's empowerment in decision-making within their households and in the wider policy choices affecting their livelihoods.

### Entry points for policy

Building on these findings, the employment-growth nexus should be a central piece of any policy aimed at securing inclusive rural transformation. More inclusive rural economies will be elusive unless the employment intensity of rural growth (on- and off-farm) is increased, given projected labour force growth. Accelerating the pace of job creation

will be all the more critical as more women enter the labour force. Set against unrelenting demographic pressures, this challenge must be overcome not only to reduce rural poverty faster, but also to avert social unrest and erosion of state authority.

A territorial approach to development is warranted, given the urban-rural gaps in economic opportunities. This would help synchronize the two transformations and generate synergistic effects. With manufacturing stunted in the region, which has witnessed premature and largely informal tertiarization (and struggles to upgrade manufacturing), NEN countries need to tackle the structural deficit differently from the early transformers among countries in the OECD and emerging Asia.

One way is to use a territorial development approach to complement the more traditional sectoral focus. This would require agriculture in the region to shift decisively to high-value products and create a local – rather than economy-wide – positive labour-productivity gradient. After the necessary investments, this gradient would help reverse some of the current productivity-reducing labour movements (as from low-productivity, subsistence agriculture to an equally poorly productive informal sector).

Policies based on a territorial approach would stimulate a vibrant non-farm rural economy through agroprocessing and other high-value rural activities (as we saw in Turkey). Such policies could consider incorporating a growth corridor approach linking rural and urban value chains with provision of rural finance services and marketing support infrastructure.

These policies could substantially narrow rural-urban gaps in poverty and labour outcomes, helping to avoid the socio-economic pitfalls such as those experienced by Tunisia. Tunisian legislators and policymakers are set to address the issue, however (box 4.3).

The region also needs a shift towards higher water productivity through technological upgrades, in view of the alarming water scarcity prospects, particularly in the NENA subregion. As climate change-induced disruptions of

the water cycle are expected to exacerbate an already critical situation, technologies for prevailing dryland agricultural systems, such as conservation agriculture and water-saving irrigation, need to be scaled up across the region. All agricultural productivity metrics must be closely monitored – labour productivity, yields per unit of land or livestock and water productivity.

Factor endowments, notably availability of irrigation water, allow for enhanced agricultural productivity through sustainable intensification. Per capita renewable water availability in the CIS subregion is nearly 10 times that in the NENA subregion, yet average agricultural value added per worker is only two thirds of that in NENA.

The CIS countries reviewed show slow structural transformation, slow urbanization and a subdued rural transformation. Those countries should aim to match the expected faster urbanization with quicker agricultural productivity to catch up with, for example, Turkey.

Although Kyrgyzstan and Uzbekistan have narrower rural-urban poverty gaps than Tajikistan, they are all grappling with high poverty. For CIS countries largely still in post-transition catch-up mode, fostering high-paced agricultural growth is a priority. But any approach that buttresses corporate farming should not neglect the family-based segment, which needs to be supported to become more profitable. To that end, IFAD engagement based on enhanced targeting and outreach of support services to smallholder farmers is a significant contributor to sustainable and inclusive rural transformation in those countries.

Livelihood options largely determine the mix of policy and investment interventions, as the three main types of dryland agricultural systems often coexist. Interventions in rural areas with high potential for sustainable intensification should focus on maximizing yields, whereas those in marginal areas should focus on increasing resilience to shocks and preventing natural resource degradation. Improving resilience to shocks should be a prominent objective generally, as IFAD and other partners have a growing constituency of rural inhabitants

### BOX 4.3 Tunisia's move to a new territorial development paradigm

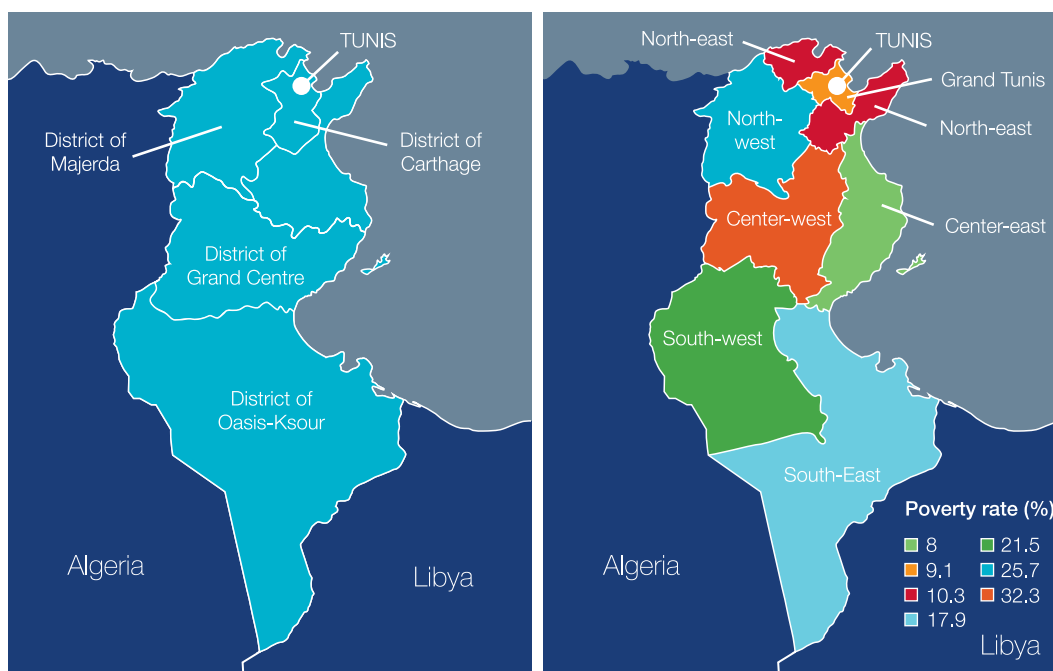
Tunisia has embarked on democratic and territorial transitions which involved the development of a new framework for local governance based on three types of local government – municipalities, governorates and districts. This latter type is new, in a major departure from previous approaches and one that merges largely urban coastal governorates with mainly rural ones in less-developed inland areas.

This framework is based on a study drafted by the Institut Tunisien des Etudes Stratégiques. This drew on the geographical theory of “central places”, which seeks to explain the number, size, and location of human settlements. The study factored in the constitutionally mandated decentralization structure and a regional development index developed by the Tunisian Ministry of Development. The study divides the country into five districts – Majerda, Carthage, Cap Bon-Sahel, Grand Centre and Oasis and Ksour.

These districts will bridge rural-urban developmental gaps. For instance, the capital of the proposed district of Majerda (left map) will be a city with the lowest regional development index, and its remit will aim to establish backward and forward value chain linkages between the industrial areas of Bizerte, the agricultural areas of Beja and Kef, and the thriving services of Tabarka, including its high eco-tourism capabilities.

#### Republic of Tunisia

Map of the new proposed districts and the poverty rate



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Source: Institut Tunisien des Etudes Stratégiques; Map compiled by IFAD, June 15 2015.



in fragile situations. For countries mired in prolonged conflict, the main thrust should be investing in human and physical assets. Rural investments and their job creation, mainly for youth, increase the opportunity cost of engaging in conflicts (IFPRI and IFAD 2015).

To avert looming conflicts over resources – mainly water – governments should emphasize water productivity and participatory management of other natural resources, such as pasturelands, alongside labour productivity.

Lowering exposure and vulnerability to risks is also vital for policy and investment. Diversifying rural economies through off-farm work – offering waged or self-employment – helps to alleviate rural poverty and helps countries cope with conflict. Such a strategy is crucial for poor rural households, who usually bear the burden of fragility.

Because several types of livelihoods often coexist in a household, interventions can promote income diversification in fragile contexts. Other interventions include building the capacity of policymakers and other rural development practitioners to use downscaled climate models for long-run planning.

These recommendations will be ineffective, however, unless rural women are empowered. The region still has the lowest rate of female-labour participation in the world – 26 per cent versus a global average of 56 per cent. Labour-related gender disparities remain pronounced, with average male labour force participation of 76 per cent, nearly three times the female rate. However, shifting cultural norms, improved access to education and vocational training, and the increasing role of modern, high-value agricultural supply chains, are all likely to increase women's participation in rural labour markets.

Shifting to these supply chains would benefit rural women through product-market channels (contract farming) or labour-market channels (hired labour in food-processing industries). This change will affect intra-household control of income, as women's control in that area is strongly correlated with women's access to labour markets and paid employment (Quisumbing and McClafferty 2006). More

widely, labour participation by women helps to achieve broader development goals, and their rising income is likely to improve child nutrition and increase spending on education and health (FAO et al. 2010).

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