

## Fact Sheet 1 Water Engineering, Agricultural Development and Socio-Economic Trends

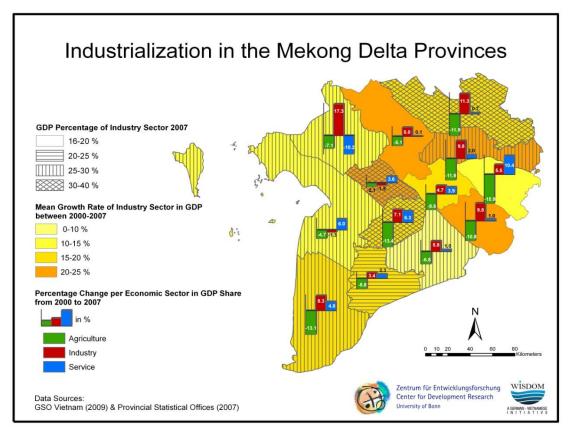
by Klaus Vormoor

The research aimed at identifying socioeconomic trends and related impacts on water resources in the Mekong Delta and was based on the analysis of secondary data collected during field work, particularly in the field of water engineering and agricultural development. As a result of extraordinary development during the last three decades, the Mekong Delta has become one of the most productive agricultural areas in the world. This impressive economic success in agricultural development goes back to reforms in the course of Doi Moi and the long-term development of water management and irrigation systems since the time of French colonialism and thereafter. Since the end of the 1990s, governmental plans for rural development have focused on crop diversification instead of following the previous rice monoculture. Especially aquaculture, but also perennial crop (e.g. fruit farming farming), have experienced a significant boom. The most recent water control projects, however, still intend to close off the delta and support multiple paddy cropping. These projects, which are most often inappropriate for the needs of new agricultural models, have caused the emergence of a great deal of controversy and conflict between different water users. In the near future the government may face problems investing in new water management strategies while simultaneously maintaining older structures, thus creating a major dilemma for future agricultural development in the Mekong Delta.

Recent agricultural growth and aquaculture development have contributed to a significant decline in poverty, exemplified by the fact that, on a regional scale, the Mekong Delta is one of three regions with a poverty rate below the nationwide average (13.5% to 15.6% as at 2006). On the provincial scale, however, the poverty pattern is more diverse, as provinces with the highest levels of poverty are coastal areas which suffer significantly from salinity intrusion (e.g. Soc Trang, Tra Vinh and Bac Lieu). Provinces with the lowest rates are those with the largest gross output in agriculture and an increasing degree of industrialisation (Can Tho, Long An and An Giang). Access to freshwater also seems to play an important role for poverty rates, as those areas located closer to channels and tributaries in the delta seem to be better off than their counterparts with less readily available water sources.

On the one hand the emergence of new agricultural developments supports the decrease in poverty while on the other hand it has also led to increased socioeconomic discrepancies. Aquaculture, for instance, was promoted by the government as a measure for reducing hardship, but to some degree it has achieved the opposite effect in that poor farmers lack the financial resources and access to credit to raise the money needed for risky investments. Moreover, successful diversification depends highly on accessibility to modern and expensive production technologies. Farmers in the Mekong Delta see this inability to access expensive equipment as a major contributing factor to their ever-decreasing yields. At the same time, those who experienced increasing vields see in new technologies important reason for their success.





Map: Klaus Vormoor (2010)

The most recent socio-economic developments in the Mekong Delta are connected to the ongoing trend of industrialisation. highest industrial growth between 2000 and 2007 can be observed in those provinces which border or cross one of the main channels of the Mekong River. It is obvious that the river as major transport arterv constitutes location factor. economic Increasing employment shares in the industrial sector, high urbanisation and delta-internal rural to urban migration rates underline this trend in the Mekong Delta. Can Tho City represents the most important engine for industrialisation within the delta, yet net out-migration still dominates in all Mekong Delta provinces (including Can Tho City). most important destination migrants (not only) from the delta is Ho Chi Minh City.

Despite the trend of industrialisation, agriculture remains the major economic sector, although resources for further development in this area seem to be

nearly exhausted. Already today, the pressure placed on water resources by different users is exorbitant and will only increase further in the future.

Environmental problems such as water and soil pollution have also emerged and pose a serious threat to human well-being. Therefore, future development strategies for economic growth in the Mekong Delta will have to focus on off-farm activities and on the shift from high yielding to high quality cropping. Consequently, increasing the sustainability of water resources use should become one of the main priorities for the future development of the Mekong Delta.

## **Further Reading**

VORMOOR, K. (2010) Water Engineering, Agricultural Development and Socio-Economic Trends in the Mekong Delta, Vietnam. ZEF Working Paper Series 57.

Klaus Vormoor studied Geography with a focus on hydrology-related topics at the Universities of Augsburg (Germany), Bergen (Norway), and Bonn (Germany). He worked at the Center for Development Research (ZEF) as a research assistant within the WISDOM project from 2009 to 2010. Further information at: http://www.wisdom.caf.dlr.de/

