

Technology Fact Sheet for Adaptation

Technology Fact Sheet: Land-use planning ⁱ

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| Sector | Agriculture/ Technology development and knowledge management |
| Technology Name | Land-use planning |
| Adaptation Benefits | Land-use planning will serve as an important regulation of land use in an efficient and ethical way, thus preventing land-use conflicts. |
| Background/ Notes, Short description of the technology option | <p>Land-use planning refers to the process by which land is allocated between competing and sometimes conflicting uses in order to secure the rational and orderly development of land in an environmentally sound manner to ensure the creation of sustainable human settlements. In Bangladesh, due to not having land use planning, agricultural lands are often been encroached for residential development, pockets of farmland remain between residential communities. On the other hand, in the coastal areas the agricultural lands, even the coastal swaps and mangrove areas are often converted to shrimp farms. Rapid extension of such shrimp farms are destroying environmental sustainability through increasing soil and surface water salinity and destroying aquatic and terrestrial bio-diversity.</p> <p>Again, conversion of agricultural land to residential use removes fertile land from productive agriculture; splits large tracts of agricultural land, thereby reducing its potential for viable farming; and restricts the use of certain production methods etc.</p> <p>In the absence of a land-use policy that reserves specific areas for agriculture, shrimp farms, housing and other commercial activities, it is likely that development control decisions will continue to alienate productive agricultural lands; compromise the economic and financial viability of the agriculture sector; and inadvertently increase the possibility of unsustainable development practices in the long run.</p> |
| Implementation assumptions, how this technology will be implemented and diffused across the subsector | The process of land use planning consists in the main of the two twin functions of Development/Land use Planning and Development Control. Of necessity, these two functions must be |

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| | <p>supported by relevant research and mapping which are also major components of the land-use planning process.</p> <p>Land-use planning should be considered as an integral part of the process of national growth and development. Among other things, this process seeks to identify, articulate and satisfy the basic social/human needs of a country's population within the context of available economic/financial resources and technical knowledge.</p> |
| Impact Statements-How this option impacts the country development priority | |
| Country social development priorities | <ul style="list-style-type: none"> • This will ensure utilization of land resources in an efficient and ethical way and will reduce social and political conflict of establishing control over land resources for commercial purpose. |
| Country economic development priorities | |
| Country environmental development priorities | <ul style="list-style-type: none"> • Will support conservation of local level biological resources. • Will stop expansion of shrimp farms in the crop lands which in turn will stop intrusion of saline water in the crop land areas • Will reduce level of pollution in the environmentally fragile areas • Will protect both the aquatic and terrestrial biodiversity in different agro-ecological zones. |
| Costs | |
| Capital costs | <ul style="list-style-type: none"> • Approx cost = Tk 2000.00 Lakh for the development of land use planning • Policy analysis of other development activities Tk 200.00 lakh <p>Total: Taka 2200 lakh ; (USD 2750000)</p> |
| Operational and Maintenance costs | <ul style="list-style-type: none"> • Approx cost of policy advocacy and awareness raising Tk 250.00 lakh <p>Total: Taka 250 lakh; (USD 312500)</p> |

ⁱ This fact sheet has been extracted from TNA Report – Technology Needs Assessment and Technology Action Plans For Climate Change Adaptation– Bangladesh. You can access the complete report from the TNA project website <http://tech-action.org/>