# MEXICO

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## Pathway Assumptions

| | | A) CURRENT TRENDS | B) NATIONAL COMMITMENTS | C) GLOBAL SUSTAINABILITY | JUSTIFICATION |
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| | | **We do not act differently than in the past decade / today** | **National actions/policies are aligned with national commitments** | **National actions/policies are aligned with global sustainability targets** | Includes: official documents, communications or signature of international treaties, scientific literature, expert consultation, etc. Add links. |
| **1. Macro-economics** | **1.1)** GDP per capita | **SSP2. "*Middle of the Road*"** - Medium speed of economic growth for most advanced countries and medium speed of convergence for other countries. | **SSP2. "Middle of the Road"** - Medium speed of economic growth for most advanced countries and medium speed of convergence for other countries. | **SSP2. "Middle of the Road"** - Medium speed of economic growth for most advanced countries and medium speed of convergence for other countries. | |
| | **1.2)** Population | Closest is UN_constantFertility. Mexican projections estimate 148209 million people by 2050. | Closest is UN_constantFertility. Mexican projections estimate 148209 million people by 2050. | Closest is UN_constantFertility. Mexican projections estimate 148209 million people by 2050. | PROYECCIONES DE LA POBLACIÓN DE MÉXICO Y DE LAS ENTIDADES FEDERATIVAS 2016-2050 |
| | **1.3)** Inflation | No Target | No Target | No Target | |
| | **1.4)** Inequalities | No Target | No Target | No Target | |
| **2. Land** | **2.1)** Constraints on agricultural expansion / deforestation | Net zero deforestation by 2030 | Net zero deforestation by 2030.<br>By 2024, a reduction of 30% in deforestation and then a linear descent. The | Halt of agricultural expansion and net zero deforestation by 2030.<br>By 2024 a reduction of 30% of deforestation and | Deforestation in National Commitments and Global Sustainability. Programa Nacional Forestal 2020-2024. Secretaría de Medio Ambiente y Recursos Naturales. |

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| | | | baseline is deforestation for the 2017-2018 years. | then a linear descent. The baseline is deforestation for the 2017-2018 years. | Constraints on agricultural expansion for Global Sustainability. Gobierno de Mexico. Planeación agrícola nacional 2017-2030. |
| | **2.2)** Afforestation, and forest plantations targets | 9128 Mha by 2050 | 9128 Mha by 2050 | 10418 Mha by 2050 | Sembrando vida and projections of reforestation following historical trends from 2024 up to 2050 |
| | **2.3)** Urban and settlements area | Current trends reaching 3328 Mha by 2050 | Current trends reaching 3328 Mha by 2050 | Current trends reaching 3328 Mha by 2050 | No policy or commitment that we could find |
| | **2.4)** Protected areas | Calculating | North American Leaders Summit: the goal is to preserve 30% of land and ocean area by 2030 | North American Leaders Summit: the goal is to preserve 30% of land and ocean area by 2030 | FACT SHEET: Key Deliverables for the 2023 North American Leaders' Summit<br><br>Estrategia Nacional sobre Biodiversidad de México plan de acción 2016 - 2030 |
| **3. Productivity and management** | **3.1)** Crop productivity for the key crops | Close 50% of the maize yield gap by following the historical trend from 2000 to 2020. | Close 20% of the maize yield gap, due to the use of fertilizers provided by the federal program of "Fertilizantes para el Bienestar". This program targets small producers and gives them 450kg of fertilizer per ha in no more than 3 ha per farmer. | Close 80% of the maize yield gap, due to the widespread implementation of the MASAGRO program in the rain-fed regions. | Maíz, proyecto al 2030 del CIMMYT<br><br>Fertilizantes para el Bienestar |
| | **3.2)** Cropland under agroecological practices | In 2018, 80% of farmers used at least one agroecological practice.<br><br>No change by 2050 | In 2018, 80% of farmers used at least one agroecological practice (cover crops or reduced till). This practice would include the program Sembrando Vida as agroforestry and milpa | By 2050 100 % of farmers will use agroecological practices. Farmers with an area of less than 5 ha (80% of farmers corresponding to a 75% of total national agricultural area) will use two | Secretaría de Agricultura y Desarrollo Rural: PROGRAMA SECTORIAL DERIVADO DEL PLAN NACIONAL DE DESARROLLO 2019-2024 |

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| | | | system.<br><br>We are assuming that the area corresponds to the small and medium farmer that comprise 75% of the total agricultural area. We adapted the time frame of the Ministry of Agriculture planning program where it intends to increase this number to 100% by 2024. We are setting it to 2030 as there is no evidence of success by 2024. | agroecological practices, cover crops and reduced till. The remaining 20% of farmers (25% of total ag area) will use mixed practices and correspond to farmers and agricultural industries with more than 5 ha. | |
| | **3.3)** Livestock productivity for the key livestock products | Same productivity growth as over 2000-2010 | Same productivity growth as over 2000-2010 | Mix of Traditional cattle ranching mixed with Modern Silvopastoral systems, cattle productivity per head in 2050 will be 79 kg and 7718 L. | 1. Lara JA, Guevara-Sanginés A, Torres-Rojo JM (2021) Análisis económico para la transición a sistemas de producción ganadera regenerativa de bovinos en Chiapas, Chihuahua, Jalisco y Verac- ruz, México. FMCN, Ciudad de México<br>2. Guevara Sanginés A, Torres Rojo JM, Betancourt López R (2020) Parametrización y análisis costo beneficio de modelos tec- nológico-financieros de ganadería sustentable, cero deforest- ación y baja en emisiones e identificación de fuentes de finan- ciamiento. The Nature Conservancy, Ciudad de México |
| | **3.4)** Pasture stocking rate | Same productivity growth as over 2000-2010 | Same productivity growth as over 2000-2010 | 70% Traditional system, 10% Modern Silvopastoral & Intensive Systems for cattle 20%. | 1. Lara JA, Guevara-Sanginés A, Torres-Rojo JM (2021) Análisis económico para la transición a sistemas de producción ganadera regenerativa de bovinos en Chiapas, |

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| | | | | | Chihuahua, Jalisco y Verac- ruz, México. FMCN, Ciudad de México<br>2. Guevara Sanginés A, Torres Rojo JM, Betancourt López R (2020) Parametrización y análisis costo beneficio de modelos tec- nológico-financieros de ganadería sustentable, cero deforest- ación y baja en emisiones e identificación de fuentes de finan- ciamiento. The Nature Conservancy, Ciudad de México |
| | **3.5)** Forest management | No Target | No Target | No Target | |
| **4. Trade** | **4.1)** Share of consumption which is imported for key imported products (%) | Following historic trend | 14 % for key products (corn, beans, rice) | 54% corn (represents white corn used for animal feed not for human consumption), 40% milk and 18% beef. Double than 2010 in the rest of the products. | For National Commitments goal. Secretaria de Gobernación. Reglas de Operación del Programa Producción para el Bienestar de la Secretaría de Agricultura y Desarrollo Rural para el ejercicio fiscal 2023. |
| | **4.2)** Evolution of exports for key exported products (1000 tons) | Exports are multiplied by 1.5 by 2050 | Exports are multiplied by 1.5 by 2050 | Exports are multiplied by 1.5 by 2050 | With a lack of clear policy, we defaulted to increasing trend of exports. |
| **5. Food** | **5.1)** Average dietary composition | **"Mexican Current Diet"** the calories per day are 2288 and rely strongly on cereals. There is a high % of sugar, oilseeds, vegetable oils, and milk intake. Developed by the National Institute of Public Health. | According to the Mexican food guidelines, the energy distribution should be: Cereals and tubers 34.2%, vegetables 4.9%, fruits 6.1%, dairy 8%, nuts and seeds 4.9%, Oils and fats 11%, legumes 12.1%, | **Recommendation by the EAT-Lancet Commission.** Cereals and tubers 32.4%, vegetables3.12%, fruits 5.0%, dairy 6.1%, nuts and seeds 11.6%, Oils 14.2%, saturated fats 3.84%, legumes 11.36%, egg 0.76%, Poultry 2.5%, | Mexican Government - ¿Qué son las guías alimentarias? |

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| | | | egg 3.4%, Poultry 4%, beef 1.1%, other red meat 1.1%, fish 0.8%. The energy requirements change by age and sex group, considering a sedentary or low physical activity (1400-2000 kcal for women, and 1960-2560 kcal/d for men). | red meat 1.2%, fish 1.6%. The level of activity is Medium. | |
| | **5.2)** Share of food consumption which is wasted at household level | 30 to 35% (FAO Data) | Reduction of 50% by 2030 | Reduction of 80% but lack of policies to back it up | FACT SHEET: Key Deliverables for the 2023 North American Leaders' Summit |
| **6. Biofuels** | **6.1)** Targets on biofuel and/or other bioenergy use | No Target | No Target | No Target | |
| | **6.2)** Targets on other non-food use | No Target | No Target | No Target | |
| **7. Water** | **7.1)** Irrigated crop area | High growth | No growth | No growth | Comisión Nacional del Agua<br>PROGRAMA ESPECIAL DERIVADO DEL PLAN NACIONAL DE DESARROLLO 2019-2024<br><br>Programa Nacional Hídrico 2020-2024<br><br>PROGRAMA ESPECIAL DERIVADO DEL PLAN NACIONAL DE DESARROLLO 2019-2024 |