

$$\begin{array}{ccc}
Y^{2p(m+p)-3} & \xrightarrow{\beta_{(1)}} & Y^{2p(m+1)-2} \\
\downarrow \Omega_0 g_{m+p} & & \downarrow g_{m+1} \\
\Omega Q_2^{2m+2p-1} & \xrightarrow{d_\alpha} & Q_2^{2m+1}
\end{array}$$